Wittgenstein and Psychology:

An exploration of creativity and madness through the investigation of sense and nonsense

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Abbreviations

It is customary within the Wittgensteinian literature to abbreviate the titles of Wittgenstein's works for the purpose of referencing. The following abbreviations are used throughout this thesis.

BB (1958) The blue and brown books. Oxford: Blackwell.

C (1969) On Certainty. G. E. M. Anscombe and G. H. von Wright., (Eds), tr, Paul and G. E. M. Anscombe. Oxford: Blackwell.

C.V (1980) Culture and Value. G.H. von Wright.,(Ed) in collaboration with H. Nyman, tr, P. Winch. Oxford: Blackwell.

LC (1966) Lectures, conversations on aesthetics, psychology and religious beliefs. (Ed) Cyril Barrett. Berkeley: University of California Press.

LFM (1976) Wittgenstein lectures on the foundations of mathematics, Cambridge, 1939. C. Diamond (Ed) Sussex: Harvester Press.

PG (1974) Philosophical Grammar R. Rhees (Ed), tr A. J. P. Kenny Oxford: Blackwell.

RFM (1978) Remarks on the foundations of mathematics. G. H. von Wright., R. Rhees., and G. E. M. Anscombe, (Eds) tr, G. E. M. Anscombe,. revised edition. Oxford: Blackwell.

RPP II (1980) Remarks on the philosophy of psychology. Vol II G.H. von Wright and H. Nyman, (Eds) tr, C. G. Luckhardt and M. A. E. Aue. Oxford: Blackwell.

Z (1967) Zettel. G. E. M. Anscombe and G. H. von Wright., (Eds), tr, G. E. M. Anscombe. Oxford: Blackwell.

PI (1958) Philosophical Investigations. G. E. M. Anscombe and R. Rhees, (Eds) tr, G. E. M. Anscombe (second edition) Oxford: Blackwell.

All reference to part one of the Philosophical Investigations are to sections, (e.g. PI § 101). All references to part two are given the form (e.g. PI, II, p. 102) the latter part indicating page reference.

MS, and M, Taken from the reference by Baker and Hacker (1985 p. xv) to the *Nachlass*.: A series of unpublished material written between 1929 and 1944. Any reference to this material is referenced to its presentation in Baker and Hacker (1980 or 1985).

WLA. Wittgenstein's Lectures: Cambridge, 1932-1935. (1979) (Ed) A. Ambrose, from the notes of Alice Ambrose and Margeret Macdonald. Chicago: University of Chicago Press.

Abbreviations of Frege's Writings:

BLA (1964)The basic laws of arithmetic: Exposition of the system. tr and Ed M. Furth. Los Angeles: University of California Press.

FA (1959)The foundations of arithmetic, a logico-mathematical enquiry into the concept of number. tr J.L. Austin, 2nd edition revised. Oxford: Blackwell.

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Contents

Abstract

The purpose of this thesis is to diagnose and cure some of the sources of conceptual confusion in psychology. Both the concepts of creativity and insanity are used as examples of areas of concern to psychologists. Wittgenstein (1958,1969) suggests that in psychology theory and research are directed from confused conceptions of language resulting in a paralysis of understanding. It is by following Wittgenstein's articulation of the nature of philosophy, and by understanding the relationship between philosophy and psychology, that it is possible to disentangle the conceptual confusion and gain access to accurate theorising about insanity, creativity, and the relationship between the two phenomena.

Cognitive science is criticised for perpetuating a mythology from which research is directed. Cognitive psychology relies on a misguided understanding of the nature of psychological predicates. Wittgenstein's arguments against the thoughts embodied in the cognitivist doctrine are used to disable this attempt to account for psychological concepts generally and provide a background to address the errors contained within computational accounts of creativity.

Social constructionists claim that they accurately represent the introduction of Wittgensteinian philosophy into psychology. There are several attempts made by constructionists to criticise cognitive science and present alternative research programmes for psychology. It is argued that social constructionists fail to present a convincing argument against cognitivism and furthermore misinterpret Wittgenstein's philosophy and so fail to introduce Wittgenstein's thoughts to psychology. Theorising from a constructionist perspective about the concept of insanity is used as an example to expose the types of error which result from misinterpreting Wittgenstein's arguments.

It is by contrast with these broad theoretical structures (both cognitive science and social constructionism) that the proper grammatical structure, at least from a Wittgensteinian perspective, for the concepts of insanity and creativity is developed. The relationship between grammar and evidence is explained against the background of argument in psychology relating to the study of creativity and insanity. Theoretical psychology is distinguished from philosophy with the recognition that philosophy provides conceptual clarification and psychology is involved with conceptual development.

The relationship between empirical psychology and theoretical psychology is described in contrast to the relationship between philosophy and theoretical psychology. By describing Wittgenstein's conception of philosophy it is argued that Wittgenstein offered psychologists a resource which operates either to remove conceptual confusion or promote an overview to facilitate the correct employment of terms within theory.

Introduction

"You may seek it with thimbles—and seek it with care;
You may hunt it with forks and hope;
You may threaten its life with a railway-share;
You may charm it with smiles and soap—'"

('That's exactly the method' the bellman bold.
In hasty parenthesis cried,
'That's exactly the way I have always been told.
That the capture of snarks should be tried'.)

Lewis Carroll (1876) 'The hunting of the snark'.

When pursuing the fictitious 'snark' any method will do. Furthermore, the application of the method will not in itself reveal the absurdity of the task. Perhaps the crew aboard the ship would give up after exhaustion, frustration, or despair at the losses accrued as a result of their misadventure. Another voyage might be commissioned by the next generation of heroes who adopt the mythological tradition and the methods of their failed forebears. Successive generations may alter the methods and techniques but nevertheless still fail to accomplish the capture of the 'snark'.

Ludwig Wittgenstein's philosophical considerations for psychology can be summarised as an attempt to liberate us from engaging in nonsensical pursuits. Wittgenstein warns us, as we might warn the Bellman, that tradition is responsible for our being led astray. Like the crew who hunt the 'snark' psychologists seek mythological and mysterious creations like 'ego', 'information processing executives', 'pre-operational stages' 'intelligence' and so on. Wittgenstein set himself the task of expunging nonsense, brought into tradition by an entanglement within language, from philosophy and, in turn, psychology.

Several of Wittgenstein's arguments have had either a direct or indirect influence in psychology and psychological theory. Armstrong, Gleitman, and Gleitman (1983) report that the prototype view of definitions introduced into cognitive psychology:

> ...is the family resemblance description, first alluded to by Wittgenstein (1953)[1], though he might be surprised at some of its recent guises. Wittgenstein took as an important example the word 'game'....His analogy was to the structure of family resemblances. It is such a position that Rosch and her co-workers have adapted and refined, and brought into psychology through a series of compelling experimental demonstrations. (p. 269).

Wittgenstein's arguments are not used to support this research, but merely provide the inspiration for experimental investigation. As such, it is really the empirical research, for example Rosch (1973), which is introduced into psychology, and not Wittgenstein's philosophical arguments.

Indeed, Armstrong et al, are wise to include the disclaimer that Wittgenstein might not accept the use of his analogy within experimental research: as if it had to be established empirically. Furthermore, philosophers have argued that from Wittgenstein's perspective the whole approach of cognitive psychology is misdirected. Chapter Two of this thesis will attempt to explain what Wittgenstein's objection to cognitive psychology might be.

Hacker (1986) regards Wittgenstein's 'private language argument' to be of crucial importance for psychology:

> The private language argument is, if correct, one of the most important philosophical insights achieved in this century. It is a criticism of the conception of mind which is not merely the dominant one in European philosophy, but it is also pervasive in our culture, in psychology, linguistics, and indeed in the reflections of most people who think about the nature of self-consciousness and the mind. (p. 245).

It is important to appreciate Hacker's claim that the private language argument is a philosophical insight of only indirect relevance to psychology by its criticism of a philosophical conception of mind. Wittgenstein's argument addresses the Cartesian conception of mind which is pervasive in psychology since, it is supposed, it orients psychological theory to a

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[1] Wittgenstein (1953/1958) Philosophical Investigations London: Basil Blackwell.

particular conception of the nature of the 'mental'. Hacker's position relies on an unexplicated, but not unfounded, account of the relationship of philosophy to psychology. The assumption here is that psychological theory is often informed by, rather than contributes to, the philosophy of mind.

Perhaps the best place to search for understanding the relationship between philosophy and psychology generally is to be found in the philosophy of science. Here too Wittgenstein's influence has been noted. Thomas Kuhn (1962) uses Wittgensteinian ideas and terminology freely in his attempt to characterise the scientific method. Kuhn's ideas focus several of Wittgenstein's ideas at the nature of science. Hanson also credits influence to Wittgenstein. Peter Barker (1989 p. 97) states:

> ...the "new philosophy of science" in the work of Toulmin (1953), Hanson (1958), Kuhn (1962), and Feyerabend (1965, 1970) ... these writers share two things: a conviction that the philosophy of science must be informed by the history of science, and an early exposure to the later Wittgenstein.

The suggestion is that something in the later philosophy of Wittgenstein can enlighten us on how it is that we do science. Barker recognises this when he states: "The founders of the only well-developed alternative to the logical empiricist philosophy of science, at least, recognized the potential importance of Wittgenstein's later work."(p. 97). But it is unwise to carry Wittgenstein's banner into the subdisciplines of philosophy as if it were to find a home in any one area of concern. Wittgenstein's philosophy cuts across a great many traditional divisions such that it characterises not only a change in our perception of these various specialities but signals a complete reorientation to our consideration of philosophy generally. In this capacity it is necessary, in order to fully appreciate Wittgenstein's philosophy and its relation to psychology, to avoid the temptation of characterising the influence of Wittgenstein's philosophy on any one particular speciality within philosophy which might bear some relevance to psychology.

Wittgenstein warns us that unless we deal with our entanglement in language, or our philosophical puzzlement, we will engage an endless pursuit of the mythical creations of our language. Old problems will reappear in new guises—such as the Cartesian ontology within cognitive science. While it is often the case that Wittgenstein had explicit targets of his philosophical attack, he rarely identifies them—he held a broader aim.

Wittgenstein sought to teach us a method so that we could free ourselves from repeated puzzlements. Perhaps Wittgenstein deliberately obscured his philosophical targets in light of this aim since what is common to both the targets of his philosophical attack and those present in modern philosophy and psychology is a similar entanglement in language. While different outcomes result in the application of a conceptual confusion within modern psychological theory, the same mistaken 'moves' within our language-games are committed by both the targets of Wittgenstein's philosophical inquiry and those proposals which form the basis of this thesis.

Chapter One identifies a tradition which was firmly criticised by Wittgenstein but lingers on in an orientation to psychology and philosophy. Frege's anti-psychologistic arguments are examined in order to demonstrate how it is often our initial assumptions which lead us astray. Some would regard philosophy as being grounded within universally applicable prescriptions concerning reasoning and justification. Psychology, as a science, is thought to be grounded within empirical inquiry. When common problems, such as the nature of reasoning, are encountered from these different orientations, the philosopher accuses the psychologist's methodological assumptions of being inappropriate for the task of revealing the nature of reasoning. The psychologist, or naturalistic philosopher, accuses philosophy's methodological foundations of being inept—Quine (1969) argues that philosophy simply has not been able to reveal anything about the foundations of reasoning and suggests we should settle on psychology. The error, according to Wittgenstein, is a failure to appreciate the nature of philosophical problems: they arise out of a misuse of our language. Thus, for Wittgenstein, the debate over the correct orientation for inquiry into the nature of reasoning is symptomatic of confusion. Philosophy, like psychology, is capable of pursuing the mythical—there is no need to engage in the anti-psychologistic debate nor attempt to found the nature of philosophical inquiry once one recognises that philosophy and psychology are distinct practices which employ terms like 'reasoning' for different purposes. Wittgenstein reassures that the adoption of his orientation to philosophy should make such problems disappear.

Chapter Two introduces Wittgenstein's conception of rules and rule-following. The 'cognitive paradigm' in psychology is used as an example to illustrate how certain branches of inquiry in psychology are influenced by a

commitment to a confusion generated by a mistaken conception of the nature of psychological predicates. Like Frege, cognitivists neglect to deal with the philosophical problems contained within their initial assumptions about language, meaning, and understanding. The private language argument is often invoked by anti-cognitivists to reveal the error in cognitivists' commitments. However, it is argued that the conclusions of the private language argument are insufficient for the purpose of illuminating the cognitivists' mistake. Wittgenstein enables us to understand the mistake common to both the Cartesian ontology and that contained within all mechanistic accounts of understanding. The error is that of separating the normative nature of rules from what Wittgenstein regards as the internal relation to following a rule within a practice.

One mistaken conclusion is often derived from the private language argument. It is sometimes held that Wittgenstein argued that an individual who developed in total isolation from a society would be logically precluded from attaining a language. Put another way, the development of a language logically requires, along with contingently stable material objects, a shared social practice. This view is examined in contrast to the social constructionist perspective of social psychology. It is argued that Wittgenstein did not regard it as a logical requirement that the development of a language requires a shared social practice. The general point concerning the internal relation between rules and rule-following is reinforced with the point that nothing, not a society or shared social practice, mediates between a rule and an individual's understanding of its employment.

The clarification of the point that society does not logically determine an individual's use of terms enables a more detailed examination of the nature of social ascriptions employed within psychology. The example of the concept of 'insanity' is introduced. Chapter Four examines a theoretical conception of insanity which views the ascription of insanity to be correctly applied to those who adopt rule-governed practices which are contingently unshared. Alternatively, the ascription of insanity is correctly applied to those who do not have a rule-governed practice. Both of these conceptions are rejected. The general aim is to reveal the logical character of the concepts of insanity and creativity to demonstrate how they might be legitimately employed within psychological theory.

Chapter Five introduces the technical use of the concept of 'grammar'. Wittgenstein regards a grammar to be constitutive of a shared way of acting. Our mutual adherence to grammatical rules constitutes the normative procedures involved in the use of theoretical expressions (A form of representation). Grammatical propositions are argued to licence empirical propositions. Different practices cannot be compared or clarified on the basis of empirical evidence since the gathering of empirical evidence is, in itself, a practice reliant on a grammar which constitutes a form of representation.

Chapter Six introduces the idea that we are bound to a form of representation from which it is possible to interpret the actions of others. Divergent practices are intelligible only insofar as they can be comprehended by our own form of representation. The grammar of creativity is understood against the background of this claim. It is our form of representation which gives meaning and intelligibility to divergent practices: we use our own form of representation as the measure of the adequacy of alternative representations produced by the insane, bizarre, foreign and creative.

It is sometimes held that Wittgenstein rejects the possibility of a scientific psychology, or that in the light of Wittgenstein's radical developments in philosophy that a similar movement is required in modern psychology. Perhaps this perspective on the nature of Wittgenstein's philosophy and its relation to psychology is derived from the view held by Russell that philosophy provided a foundation for research in other disciplines, that philosophy was the 'Queen of the sciences'. For whatever reason it is held that Wittgenstein radically alters our perspective in psychology, it is a fundamental misinterpretation of Wittgenstein's philosophy. Wittgenstein rejected the view that philosophy could provide a basis for investigation in the sciences. He maintained that so-called psychological phenomena are sometimes the illusions of grammar, the pursuit of which is symptomatic of an entanglement within our own conceptual language. Philosophical investigation of these entanglements can relieve scientific investigation of the motivation to pursue the mythical: but it does not radically alter the actual methods adopted in the pursuit.

To examine the traditions which lead us astray it is necessary to step back from the context of modern mainstream psychology. The purpose of this investigation is not to find the 'psychological snark', nor to simply point

out the nonsensical nature of the pursuits of many in psychology. The task is to examine our traditions; and further, to show the nature and purpose of examining our traditional influences in psychology.

If one supposes the voyage in pursuit of the mythical in psychology was commissioned fifty years ago then undoubtedly one must place Alan Turing on the boat. Turing ventured methods in mathematics which were adopted into current theorising in psychology under the banner of 'cognitive science'. Perhaps, like the bellman in pursuit of the snark, the methods have lost their lineage over time: we fail to see how they arose, why they were developed, and the context in which they were originally employed. However it happened, Turing's work is credited as one of the founding influences for at least one area of modern psychological theorising. What is most surprising is that at exactly the time Turing ventured the proposals which were eventually introduced to psychology, Wittgenstein was campaigning that Turing's conception of mathematics is apt to mislead. Turing even attended Wittgenstein's lectures but abandoned them when he decided that there could be no common ground between Wittgenstein and himself since they could not agree to the significance of a contradiction within a system of mathematics (Monk, 1989 p. 422). Wittgenstein's warnings were ignored and the boat sailed.

Chapter One

A Tradition of Division

Wittgenstein's philosophy developed from his considerations of the nature of mathematics and logic. To most it might seem that philosophical problems concerning mathematics bear little relevance to the problems of psychology. Wittgenstein, like Frege before him, rejected all accounts of psychologism: the notion that, for example, "...the law of Non-contradiction reports the incompatibility of the mental state p with the mental state of believing not-p." (Baker, 1988 pp. 171-172). Frege, like Wittgenstein, was concerned with the foundations of logic. Both agreed that logical analysis is, "...wholly independent of introspective psychology" (Hacker, 1986 p. 20). Frege's concern was to determine the foundations of logical necessity without recourse to an implicit conception of intuition: "For this purpose he considered that he had to circumscribe and formalise the sound proof procedures employed by mathematicians" (Baker and Hacker, 1984 p. 33). Wittgenstein (1958) turned his attention to the logical character of *understanding* in relation to his philosophical account of meaning and language. The sharp division between the psychological inquiry of understanding and the formal methods of logic produced by Frege was gradually eroded in Wittgenstein's later philosophical writings. Wittgenstein came to hold a more cautious approach to psychologism regarding:

> The opinion that the laws of logic are the expression of "thinking habits" is not as absurd as it seems." (MS XIV, p. 12 cited in Baker and Hacker, 1985 p. 317).

Wittgenstein never endorsed an account of psychologism, he thought it was confused. Nevertheless, Wittgenstein adopted the position that the philosophical problems concerning the foundations of mathematics are similar to those of the foundations of scientific psychology—the nature of

both disciplines can be examined in similar ways. Thus, while both Wittgenstein and Frege recognised a gulf between the two forms of inquiry, and both maintained a division, it is Wittgenstein who recognised a bridge across the gap.

Psychologism is a term that has been used pejoratively ever since Frege produced arguments which purportedly established that psychological considerations are irrelevant to philosophy. Frege was working within a well established tradition, his arguments exemplify the view that psychology is to be regarded as independent of philosophy; philosophy was to be viewed as independent of all science. Psychologism, according to Sober (1978):

> ...denotes a family of views all tending to downplay or deny distinctions between epistemology and logic on the one hand and psychology on the other. (pp. 166-167).

Mohanty (1982) offers us a distinction which suggests that psychologism comes in varying degrees:

> Weak logical psychologism holds the view that...psychological inquiry into actual human thought processes constitutes necessary but not sufficient conditions for inquiry into the foundation of logic. Strong logical psychologism considers logic to be a branch of psychology, the laws of logic to be descriptive laws of actual human thought processes and understands these laws as making assertions about mental events....(p. 20).

Positions which entail a psychologistic commitment tend towards understanding the nature of logic within a branch of psychology. Rationality, inference, and judgement become an aspect of some inquiry within psychology.

There are, according to Aach (1990), four separate but related arguments presented by Frege and, in the same tradition, Husserl, against psychologism. Each of these arguments will be considered here but it should not be overlooked that the purpose of this discussion is to establish some of the reasons that psychological inquiry has been held to be fundamentally different from philosophical inquiry—that the former might be justified by recourse to the latter. It is commonly argued that Frege and Husserl presented an impoverished account of psychology which could not possibly anticipate the nature of the discipline today. Serious consideration of Frege's arguments against psychologism might be regarded

as anachronistic (Sober, 1978; Dummett, 1991). Furthermore, Wittgenstein's conception of the relationship between philosophy and psychology could never be placed under the banner of psychologism (Baker, 1984), indeed it is more accurately antithetical (Baker and Hacker, 1984 p. 62). Since the intention here is to illustrate an aspect of Wittgenstein's philosophical perspective on psychology the present argument is not intended to endorse any form of psychologism.

The reason for the present discussion comes from Wittgenstein:

> A picture held us captive. And we could not get outside it, for it lay in our language and language seemed to repeat it to us inexorably. (PI §115).

Aach (1990) describes the arguments against psychologism as presenting a bifurcation. Here the prevailing picture is either what Aach calls the 'independence assumption': the view, "that logic is entirely independent of psychology, *which has no relevance to the latter's foundations.*" (1990 p. 315), or some other account of the nature of the necessary truths of logic: 'nominalism', 'Platonism', or 'psychologism'. Wittgenstein addressed the debate concerning psychologism in an indirect way, by rejecting the initial assumption that the division described above is necessary, and considered a different question concerning both the foundations of psychological inquiry and those of mathematics. He considered psychologism to be confused and the arguments of Frege concerning that nature of the necessary truths of logic misdirected. Wittgenstein recognised that the basic error of the philosophy of psychology and similarly in the philosophy of mathematics was the assumption that all propositions are used descriptively. Wittgenstein's philosophy is an attempt to persuade us to abandon the assumptions we first adopt concerning the nature of our inquiry—to forestall attempts to ground it somehow initially (i.e by reference to bogus objects). Baker (1988 p. 163) reports:

> The terms 'Platonism', 'nominalism' and 'psychologism' flag different strategies for answering these questions [Questions concerning the nature of logical truths]. Wittgenstein addressed the quite different question of the role or function distinctive of propositions of logic, and he suggested that traditional philosophical controversies would be dissolved once one noticed that they took for granted, as Frege had, that the propositions of logic have the same kind of employment as empirical propositions.

The picture that holds us captive is the view that an investigation of the foundations of logic or mathematics is essentially different from the investigation of the foundations of psychology. It is this picture which flows directly as a result of regarding as acceptable the initial arguments for a division between psychology and philosophy. This division is persistent, it remains in a subtle form within attempts to justify philosophical methods in relation to such disciplines as psychology.

The defence of the purity of logic

Frege sought to defend the purity of the formal analysis by adopting a 'common expedient' (Baker and Hacker, 1984 p. 40). Frege suggested that the psychologicians had misrepresented the nature of the laws of logic by misrepresenting the objects of judgment as being dependent upon individual psychological variables. When psychologicians presented accounts of reasoning they carried a commitment to viewing the objects of judgement as being the psychological processes of individual reasoning. Thus the 'common expedient' adopted to defend formal analysis from the confounding influence of inquiry into individual reasoning was to separate the act of judging from the content of judgement: "The mental act was distinguished from the act itself." (Baker and Hacker, 1984 p. 40).

Frege derived from this assumption the argument that the object of inquiry for the logician existed in mind-independent realm. Frege suggested that psychology was by definition the science of subjective ideas. It is the case, according to Frege, that everyone has a different idea, for example, of the number 'two'. Therefore the meaning ('Meaning' being a philosophical concept requiring analysis at a formal level) of 'two' cannot be that subjective idea. Thus Frege set about to establish a difference between the subjective and the objective. The subjective exists in the mind of an individual and cannot be the subject matter for philosophy which is the study of the objective idea which represents the same thing for all—this distinction "...stands or falls with that between psychology and logic" (FA, p. 37).

Frege challenged the notion that the meaning of a term was the mental image that the term calls up in thought. (This view lingers on in certain forms of psychology particularly with cognitive psychologists who hold to a representational account of meaning or perception.) It may well be that

Frege's thesis was "...supported by a number of bad arguments."(Dummett, 1981 p. 32), however it should not be overlooked that his motivation was to identify and clarify a conception of logic not to prohibit certain forms of inquiry in psychology. Notwithstanding this, Frege's programme required philosophical analysis to remove all references to psychological considerations, particularly any reference to the idea that a theory of meaning can be grounded in psychology. Psychology, according to Frege, focuses on the idiosyncratic whereas philosophy studies the objective.

Frege did not present a direct attack on the nature of psychological inquiry; he argued against a particular claim made by psychologicians that thinking or inference is essentially a mental act. He was not even particularly interested in psychology (Aach, 1990). Nevertheless, Frege's bifurcation of the concept of grasping mind-independent sense from the psychological notion of subjective ideas had a wider impact. Far from simply defending a characterisation of the nature of the laws of logic the acceptance of his account of the nature of logic characterised psychological inquiry.

For Frege the sense of an expression could be determined independent of any psychological considerations. Frege supported this Platonistic account of sense with a series of arguments directed against the psychologistic position and a number of truisms invoked to support his thesis. Sober (1978, p. 169) characterises Frege's argument:

> If communication is possible, the speakers of a language must associate the same, or nearly the same meanings with the terms they use. But the mental image that people associate with terms vary enormously from person to person. Images vary, but meanings cannot, so meanings are not mental images.

Sober regards the premiss that "Images may vary, but meanings cannot" to be insufficient against the background of modern cognitive psychology. But this is an unfair interpretation of Frege's argument. Frege's argument was directed against the consequences of a fully considered psychologistic account of logic. A better representation of Frege's argument comes from Baker and Hacker (1984 p. 48-49):

> For what A would judge in judging that 2+2=4 would concern his ideas, and what B would judge in denying that 2+2=4 would concern his ideas, and there would be no common object of judgement at all...If communication is possible,...it must be possible for different people to think the same thing. But this is

> inconsistent with the claim that what we think is an idea, on the assumption that ideas are subjective...

Or directly from Frege: If the number two really were a subjective idea then,

> ...it would have straight away to be private to me only. Another man's idea is *ex vi termini*, another idea. We should then have it might be many millions of twos on our hands. We should have to speak of my two and your two, of one two and all twos... (FA, p. 37).

Frege conceived no problem with regarding psychology the science of the subjective—reasoning by elimination, it was his objective. Again, Frege had a particular programme which motivated the above argument. If one disregards the motivation for Frege's argument and treats the issue which prompted its inception into philosophy as anachronistic, one might treat his thesis, regarding the bifurcation of the content of judging and act of judging, to be an historical oddity. One might suppose that Frege adopted a 'common expedient' to promote a particular characterisation of the relationship between philosophy and psychology. Then one is free to consider, in the same way that Frege considered the implications of psychologism, the implications of this bifurcation and dismiss his thesis as presenting an impoverished view of the nature of psychology.

Frege considered it entirely correct to suppose that each individual has a different 'idea' of what the concept 'two' is. Quite the opposite impression is held plausible when arguing that everyone knows what, for example, 'red' is when they see it. We might suppose that everyone perceives a red rose in the same way (perhaps because of some evolutionary functional argument) but admit that, *philosophically*, it might be the case that someone might not experience a 'red' rose as red and perhaps they 'see' it as yellow—we regard it as *possible* in the same way that we know there are people who are colour-blind. For example, consider Giere (1985):

> From an evolutionary perspective, the subjective certainty is indeed causally connected with the more direct source of the reliability of such judgements, which lies in our evolved capacities fit interacting with the world. But the operation of these capacities is largely unrecorded in our conscious experience. Rationalist philosophers, on the other hand, focused on our more general subjective intuitions, such as, that space has three dimensions and that time exhibits a linear structure. These judgements seem to be built into the way we think. And indeed

> they are, for the aspects of the world relevant to our biological fitness have roughly that structure. (p. 340).

Giere (1985) embraces, perhaps without intention, Frege's conclusion that there is a division between the subjective and the objective but regards the division as unproblematic for the form of inquiry he promotes since he supposes that mental content is causally constrained—mental content is therefore not idiosyncratic. Giere (1985) offers a mechanistic account of the nature of mental content constrained by evolutionary processes. Clearly this view is characteristic of an account of psychologism, 'These judgements seem to be built in to the way we think', but is not subject to the criticism advanced by Frege that psychology, or in Giere's case naturalised philosophy of science, is the study of the subjective and idiosyncratic. Giere asserts that the subject matter of this naturalised version of philosophy is objective: made so by linking the subject matter of his inquiry to a theoretical conception of the nature of human reasoning. Thus, at first sight, the implication that psychology must address the subjective and idiosyncratic seems unfounded and Frege's argument suffers from relying on a narrow characterisation of the nature of psychology.

Sober (1978 p. 186) argues: "The plausibility of psychologism depends in part on the correctness of this view of psychological theory." He regards a functionalist theory of mind as adequately defending a psychologistic position:

> The objects operated upon during these stages of processing will be representations which occur within a language or a nonlinguistic representational system. (p. 168).

Sober (1978), like Giere, merely avoids Frege's claim that the objects of psychological inquiry are subjective and idiosyncratic. The problem with attending to Frege's arguments in this way is the failure to appreciate the target of Frege's attack. Sober addresses only the broader implications of the anti-psychologistic arguments he does not recognise the explicit target of Frege's arguments—a psychologistic account of logic.

Mohanty (1982) summaries this position:

> A functionalist theory of mind appears to avoid some of the pitfalls of the other, more common empiricist themes. A psychologistic theory of logic, which makes use of such a theory of mind, avoids the two extremes of reductive physicalism and subjective mentalism. Most of the anti-psychologistic arguments,

> whether of Frege or of Husserl, are directed against either of these two. It is easy to show that functionalism is immune to them. (p. 31).

However, as Mohanty argues:

> But as a theory of logic, in other words a new variety of logical psychologism, it is worthless, for the construction of the functional theory, like that of any theory qua theory, implies precisely the sort of logical concepts whose explanation the theory would be giving. While the anti-psychologistic arguments are rendered ineffective, we would no longer have what Husserl and Frege would have called a psychologistic theory of logic. In fact, we would not have a theory of logic at all. (p. 31).

To defend psychology from the characterisation implicit within the acceptance of Frege's bifurcation of meaning concedes by default the argument which Frege sought to establish. Frege's 'bad arguments' present an impoverished account of psychology. But the defence of psychology from Frege's anti-psychologistic arguments addresses only the broader consequence of accepting the separation of the mental act of judging from the content of judging. The defence of psychology fails to address the actual problem which arises in the temptation to adopt Frege's 'common expedient'. Wittgenstein requests that we examine what led us to regard such a division as being acceptable and what confusion might be entailed in its acceptance (see below).

Frege, and later Husserl, considered carefully the implications of psychologism. A second argument against the plausibility of psychologism was developed. Suppose, we accepted Giere's account, or some other example (Behaviourism, Aach 1990, or Cognitive science, Sober 1978) as providing a means of avoiding the conclusion that psychology studies the subjective ideas of individuals which vary from individual to individual. Then, according to both Husserl and Frege a notion of 'truth' would be nonsensical. An understanding of truth would entail understanding the psychological processes which led to the belief that something was true. Frege asserts:

> Being true is different from being taken to be true, whether by one or many or everybody, and in no case is it to be reduced to it (BLA, p. 13).

Of course, just because everyone might agree that the world is flat does not make it flat. But the general point here is that *it does not follow* from the

fact that everyone agrees about the truth of a proposition that the proposition is indeed true. Husserl went so far as to say that truth is: "one and the same, whether men, or non-men, angels or gods apprehend and judge it." (Husserl 1970, p.140 cited in Aach 1990 p. 317). But in what sense is it correct to say that something is true? Frege submits to: "The question why and with what right we acknowledge a law of logic to be true, logic can answer only by reducing it to another law of logic. Where that is not possible, logic can give no answer." (BLA p. 15). Thus Frege begs the very question in issue, viz., can anything other than logic justify the use of, in this example, logic. The validity of his argument presupposes the system which the adherent of psychologism is free to reject.

Despite the problems with the arguments of Frege and Husserl it is clear that a successful defence from the anti-psychologistic arguments, a plausible psychologism, must provide an account as to why the laws of logic are compelling but not submit to use of the concepts of truth or necessity which are incorporated within those logical systems. To do so would defeat the account of psychologism. The accusation is offered that the psychology of scientific reasoning would offer a view that: "...it is true that there is no absolute truth, which is a contradiction"(Aach, 1990 p. 318).

Perhaps the first two arguments offered by Frege present no real difficulty for modern day psychology. A third argument, which does not rely on characterisation of psychology, is presented in the *Introduction to the Foundations of Arithmetic,* Frege warns:

> Never let us take a description of the origin of an idea for a definition, or an account of the mental and physical conditions on which we become conscious of a proposition for a proof of it. A proposition may be thought, and again it may be true... (FA, p. vi).

Sober (1978) argues that positivist philosophers inherited from Frege the tradition that logical laws must be distinguished from causal laws. Logical necessity is not the description of the causes of an event (The acceptance of a conclusion) they are the means of justifying that conclusion. The logical positivists adopted this distinction and reasoning in their characterisation of science. Popper (1972 p. 31) writes:

> The initial stage, the act of conceiving or inventing theory, seems to me neither to call for logical analysis nor be susceptible to it. The question of how it happens that a new idea occurs to a man—whether it is a musical theme, a dramatic conflict, or a

> scientific theory—may be of great interest to empirical psychology; but it is irrelevant to the logical analysis of scientific knowledge. The latter is concerned not with questions of fact (Kant's *quid facti?*), but only with questions of justification or validity (Kant's *quid juris?*)...

Popper suggests that in order to gain a conception of the process of science philosophers need not ever examine the concept of creativity, which he takes to represent the cause of a discovery; psychology is irrelevant to epistemology. He states:

> Accordingly I shall distinguish sharply between the process of conceiving a new idea, and the methods and results of examining it logically. As to the task of the logic of knowledge—in contradistinction to the psychology of knowledge—I shall proceed on the assumption that it consists solely in investigating the methods employed in those systematic tests to which every new idea must be subjected if it is to be seriously entertained. (1972 p. 31).

Popper states his position on the concept of creativity clearly:

> My view of the matter, for what it is worth, is that there is no such thing as a logical method of having a new idea, or a logical reconstruction of this process. My view may be expressed by saying that very discovery contains "an irrational element", or "a creative intuition,"... (1972 p. 32).

Thus Popper's position suggests the study of creativity is purely concerned with the causal antecedents which promote the Platonic entities available for philosophical analysis. Popper relies on a characterisation of psychology, which if not a direct descendent from Frege's account of the nature of the foundations of logic, is akin to Frege's view in that it promotes a division between two forms of inquiry which suggests that a study of the foundations of one type of inquiry (logic or justification) is fundamentally different from the other (empirical investigation or psychology). The argument that empirical laws produce only an understanding of causal processes which promote an idea whereas logical laws are directed to how an idea is justified is distinct from the first two arguments in that it does not rely on any specific characterisation of psychological inquiry. The argument is stronger than the first two discussed since it does not present the view that psychology studies the subjective and idiosyncratic.

The argument that the causal processes which lead to a discovery, or reasoning, are different from the acceptance of the discovery, or

justification of a proposition, extends to the fourth and final argument against psychologism. Both Frege and Husserl argued that the laws generated by empirical investigation, like psychology, are inexact whereas the laws of logic are universal and true.

Husserl writes:

> The basic error of Psychologism consists, according to my view, in its obliteration of this fundamental distinction between pure and empirical generality, and in its misinterpretation of the pure laws of logic as empirical laws of psychology. (Husserl 1970, cited in Mohanty, 1982 p. 39).

Logical laws are thought to be universal prescriptions not dependent upon any contingent state of affairs. Psychology, and all empirical science, merely studies empirical laws which arise from the consideration of states of affairs. Both Husserl and Frege—albeit less systematically than Husserl (Aach, 1990 p. 321), regarded this justification for the view that the 'laws of logic' could not be produced by empirical science. Thus a similar strategy is employed with that of the first two arguments. No longer is it the capacities of the individual which are precluded from producing the mind-independent realm which contain the 'laws of logic' but the 'realm' which logic occupies is not even contingent upon anything capable of being apprehended by empirical science.

Aach (1990 pp. 321-328) separates the anti-psychologistic arguments which depend on a conception of psychology's subject matter as being subjective from those which distinguish logical laws from the products of an empirical science. The distinction is appropriate only to the extent that it is possible to assert from some theoretical perspective that psychology's subject matter is not subjective. Frege and Husserl's first two arguments are ineffective against such proposals. However, as mentioned, Frege's arguments were directed against a full psychologistic account of reasoning, which as Mohanty (1982) points out is not contained within those doctrines which are purportedly immune from Frege's attack. What is common to all the arguments which Frege has presented is a commitment to a conception that logical laws are prescriptive, and the study of logic, a normative science. The separation of the mental act and the content of the mental act promotes the view that logic tells us what we *ought* to do rather than what we actually do. Thus as Goldman (1985 p. 310) summarises:

> Epistemology, even analytical epistemology, is interested in specifying rules or principles that prescribe, permit, or prohibit various intellectual attitudes or strategies. Furthermore, the specification of such rules or principles cannot fall within the province of psychology. Psychology is a factual or positive science, not a normative discipline. The selection of rules and principles belongs to a normative discipline. Hence, empirical psychology cannot supplant epistemology, and indeed has no relevance at all to this task of epistemology.

From Frege's perspective, the study of logic unlike the study of nature must be directed at its universal applicability. The third and fourth arguments above are directed at this point. Aach's distinction fails to enlighten the underlying commitments of Frege and Husserl's reasoning.

Naturalised Philosophy of Science

The arguments raised against psychologism are echoed within debate concerning 'naturalised philosophy of science'. Few philosophers who regard themselves as committed to a naturalised perspective of the philosophy of science make any explicit commitment to an account of psychologism. Nevertheless, in Chapter Eight Thagard (1989) is offered as an example of one with just such a commitment. It has been argued that Popper's distinction between the process of discovery and the context of discovery derives from the same perspective of the nature of philosophy that Frege held—Popper rejects naturalised accounts of science, Frege rejects naturalised accounts of logic. In the same way that the psychologician is free to reject the arguments which Frege promoted to defend his bifurcation, the naturalised philosopher of science defends a position from similar attacks, using familiar arguments. Peter Kosso (1991 p. 349) states that:

> If there is any clear trend in current philosophy of science it is a trend to naturalization. More and more philosophers of science are advocating an empirical approach to epistemology, empirical in the sense that many epistemological questions are to be answered by the evidence of science.

The idea that logic is the foundation to all knowledge claims, represented in the epistemological position of the logical positivists, was the subject attacked by Quine (1969). Although Quine's position has been readily adopted he owes the strength of his argument to history. After considering

the failures of certain epistemological programmes Quine (1969 p. 75) offers:

> The stimulation of his sensory receptors is all the evidence anybody has had to go on, ultimately, in arriving at his picture of the world. Why not just see how this construction really proceeds? Why not settle for psychology?

The prevailing picture that develops is a debate concerning the proper orientation of philosophical inquiry and its relation to empirical investigation—here psychology. Quine advances a view that does away with traditional foundationalist conceptions of the nature of philosophical inquiry at the expense of doing away with philosophy altogether. Putnam (1982 p. 19) describes Quine's position as:

> ...epistemological Eliminationism: we should just *abandon* the notions of justification, good reason, warranted assertion, etc., and reconstrue the notions of evidence (so that the evidence becomes the sensory stimulations that *cause us* to have the scientific beliefs we have).

Putnam manoeuvres in the same way that Frege had in his orientation to the psychologicians. Recall that Frege maintained that a notion of 'truth' is undermined within the adherence to the psychologicians' perspective on the nature of philosophical inquiry. Consider:

> If one abandons the notions of justification, rational acceptability, warranted assertability, right assertability, and the like, completely, then 'truth' goes as well. (Putnam, 1982 p. 20).

And similarly with respect to the nature of the objects of philosophical inquiry Putnam continues in the Fregean tradition:

> We don't have an Archimedian point; we speak the language of a time and place; but the rightness and wrongness of what we say is not *just* for a time and a place. (Putnam, 1982 p. 21).

The arguments produced to defend a characterisation of the nature of logic and logical inquiry seem to persist in new guises in a different debate. The material here is not meant to exhaust the arguments for or against the naturalisation of science. The purpose is to expose Wittgenstein's point (PI §115) that the confusions which arise in philosophy present pictures which repeat themselves across history and disciplines. The psychologicians' concerns are revived in a characterisation of the correct approach to epistemology and the philosophy of science.

The first line of defence against those who advocate naturalised versions of the philosophy of science is to accuse the adherents of this position of circular reasoning. The argument raised suggests that scientific methods cannot be turned to study science since the former presupposes the very thing that is the object of inquiry. Whether there is something paradoxical about a science studying science seems to presuppose a conception of science and more particularly a conception of psychology. Quine (p. 84) assures us:

> ...but it is all right now that we have stopped dreaming of deducing science from sense data. We are after an understanding of science as an institution or process in the world, and we do not intend that understanding to be any better than the science which is its object.

Mohanty (1982) accuses the psychologicians of question begging for the same reason. Any empirical investigation into the nature of logic will presuppose the adequacy of the theory on the basis of its logical structure—The adequacy of the theory being the very thing that is under examination. Quine rejects the epistemological programmes that attempted to reveal the foundations of such things as the nature of mathematics for the same reason we might regard Frege's appeal to yet another rule of logic to explain logic as being inadequate—the infinite regress seems to be an intolerable consequence of adhering to a particular conception of the nature of logical entities.

Common to Putnam (1982) and Frege's anti-psychologistic arguments is the assumption that philosophy is concerned with revealing the normative aspects of universal prescriptions which are held to be true independent of our grasping them. Baker and Hacker (1984) argue that any argument which could be described as an extension of Frege's thinking will contain a distinctive amalgam of Cartesianism and Platonism. Putnam's adherence to the view that 'rightness and wrongness' are transcendent of time and place carries the same confusion entailed within Frege's belief that logical laws are paradigmatically true across all time and space (discussed below). Frege's arguments linger as historical oddities regarded by Sober and others to be anachronistic against recent trends in psychology. Trends towards naturalisation in the philosophy of science, according to Kosso (1991) and Dedrick (1993), contain the same commitments and repeat the same arguments. Here the naturalisation of the philosophy of science threatens

to undermine the commitment held by some philosophers, for example Putnam, of the correct orientation to the nature of philosophical inquiry.

Wittgenstein, Frege and Psychologism

By adopting the 'common expedient' of separating the act of judging from the content of judging Frege maintained a tradition in philosophy inherited from Descartes and Locke (Baker and Hacker 1984 p. 47). Frege's characterisation of the division between logic and psychology relies on an account of the nature of judgeable-content. Frege thought it necessary to defend the non-psychological character of sense by holding that the content of judgements exist timelessly and independently of the individual.

> The objectivity of thoughts as the objects of these allegedly mental acts secured for him a beachhead for developing the science of logic independently of psychology. The Cartesian myths were left untouched within what seemed to be their proper psychological domain, while Frege, his flanks seemingly well-guarded against intrusion from psychologism, proceeded to develop his Platonistic fantasies. (Baker and Hacker, 1984 p. 60).

Frege severed the relationship between meaning and understanding. He regarded that a proposition's sense was contained within the fact that it is communicable. The sense of a proposition is not psychological since this concedes the psychologicians' conclusion. Rather the agreement over the sense of an expression consists in an agreement over what conditions make the proposition true. The criteria agreed to in the acceptance and communicability of a proposition were independent of all psychological considerations in the mind-independent realm—The criteria were 'imperceptible public entities' (Baker and hacker 1984 p. 61). Frege regarded Platonism to be the only alternative to psychologism by relying on the anti-psychologistic argument that propositions refer to timeless abstract entities rather than to ideas.

How is it that we arrived at a position in which we claim the laws of logic are true across all time and space without recourse to anyone apprehending them? For Wittgenstein confusion arises in the initial assumptions we make about the nature of the philosophical problem (PI§ 308). Wittgenstein explains by examining a law condemning a man to death (LFM, XX p. 197). For example, the law might be: 'If the man steals an apple then he is

sentenced to death'. Judges come to interpret the law either leniently, and therefore not carry out the sentence, or inexorably and follow the entailment from action to consequence. Then by disregarding the actual judgement passed by a court of law one holds that the law is fixed whether or not a man who steals an apple is actually sentenced to death by a judge—the 'Law' still condemned him even though the judge did not:

> How does this picture come into our minds? We first draw a parallel in the expression used in speaking of the judge and in speaking of the law: we say "the judge condemns him" and also "the law condemns him". We then say of the law that it is inexorable—and then it seems as through the law were more inexorable than any judge—you cannot even imagine that the law should be lenient. (LFM, XX p. 199).

The parallel drawn between the treatment of 'the law' and 'the judgement' is analogous to the 'common expedient' adopted by Frege in the separation of the act of judging and the content of a judgement. One ignores the connection between the public object and an individual's apprehension of that object: perhaps passing consideration of the issue to psychology. One treats 'The Law' as being different from that which is passed by judges within a social practice. This kind of treatment of 'logical objects' leads to what Wittgenstein describes as labelling the 'super-hardness' of the logical law.

To describe something as rigid we require a comparison. Thus ordinary comparisons like comparing elastic with steel allow us a criterion for describing steel as rigid: steel does not stretch as much as elastic. The separation of the act of judging from the content of judgement tempts the confusion of drawing a comparison between the two pictures promoted in the use of the different expressions. The treatment of describing the laws of empirical science as being less exact than those of logic tempts one to draw a comparison between the different uses; noting that they are both laws requires the addition of the superlative to attach to the latter. Logical laws are 'super-hard' and inexorable *compared* to empirical laws. Then:

> ...we are led by the parallel use of the pictures to a point where we are inclined to use a superlative. We then have to show the sources of this superlative, and that it doesn't come from the source the ordinary idea comes from. (LFM, XXI p. 199).

Thus, for Wittgenstein, the mistake that promotes the Platonism in Frege's account is the initial division (Frege's expedient) between the foundations

of logic and the foundations of psychology. The temptation caused by promoting the division is to draw a comparison between the two forms of inquiry and attempt to find some defining criterion which supports the difference. We might mistakenly assume that logical laws must be compared to empirical laws on the basis of the division. Frege's characterisation of the purity of logic is maintained in contrast to the psychologicians' but is an illusory requirement of entertaining a comparison between two pictures of the nature of logical necessity: psychologism and Platonism. Thus Frege creates a mythological realm for his superlative description of logical entities to exist: Logical laws, being inexorable in comparison to empirical ones, exist in a mind-independent realm.

By rejecting the division adopted by Frege as promoting illusory requirements for the explanation of logical necessity Wittgenstein freed himself, unlike Frege (Baker and Hacker 1984 pp. 59-61) to address the notions contained within the Cartesian conception of mind:

> Try not to think of understanding as a mental process at all.—For that is the expression which confuses you. But ask yourself; in what sort of case, in what kind of circumstance, do we say, "Now I know how to go on," when, that is, the formula has occurred to me?— (PI § 154).

By omission Frege accepts the Cartesian conception of the nature of subjectivity. Frege's position adheres, like the psychologicians, to the Cartesian conception that understanding is a mental process and therefore the proper domain of psychology. Baker and Hacker (1984 p. 61) argue that Frege's position contains:

> ...a naïve and incomprehensible conception of thinking: thinking is a mental process, necessarily involving mental object (images), in which we mysteriously come into contact with Platonic entities (thoughts or judgeable-contents).

Frege could not reconcile the relationship between the objective and mind-independent objects with a conception of understanding (Dummett 1991, Baker and Hacker 1984):

> Even granted that senses are not mind-dependent, still grasping a sense, or understanding a word or phrase, as expressing a sense, is surely a mental act, something that belongs within the province of psychology. (Dummett, 1991 p. 238).

Similarly, Baker and Hacker (1984 p. 61) report:

> What is it to think the sense of a sentence?...to apprehend a number or a set, or to grasp the sense of a numeral or of the name of a set? Frege relegated the clarification of these mysteries to psychology... and thereby justified his own neglect to resolve the perplexities generated by his Platonism.

Wittgenstein's answer is this is to restore the severed relation between meaning and understanding. In the same way one must treat 'the law', *ceteris paribus*, as the practice of passing judgements. Hacker (1986 p. 73) comments that as early as *Notes on Logic*[2] Wittgenstein suggested that the correlation of name and its meaning is psychological. Wittgenstein regarded the laws of logic to be constitutive, or defining features of, what we regard as thinking, reasoning, and so on. Rather than viewing logic to be a normative science which offered universal prescriptions of how to think he regarded thinking to be internally related to the practices of using language.

Wittgenstein explains in relation to the law of non-contradiction, rather than regarding a logical law as a universal prescription on how one should think (Wittgenstein rejects the initial assumption adopted by Frege), Wittgenstein examines the way that it is used:

> We first learn a certain technique of using words. Then the most natural continuation for us is to eliminate certain sentences which we don't use—like contradiction. This hangs together with certain other techniques.(LFM, XXI p. 201).

Wittgenstein offers the example of acting as a general and receiving contradictory reports regarding the size of the enemy. One envoy relates a story of 40,000 troops and another 30,000 troops. In response to the contradictory claims it is possible to act in many different ways: ignoring one report as an exaggeration for instance. But the way of acting that follows from the reports determines whether the contradiction is understood:

> If I react by saying, "Well, there are 30,000 and there are 40,000", you would say, "What on earth do you mean?" You might say, "Surely you can't imagine there being 30,000 *and* 40,000." But this could be answered in all sorts of ways. I might even draw a

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[2]Wittgenstein (1961) Notebooks 1914-16 G. H. von Wright and G. E. M. Anscombe, trans. G. E.M. Anscombe. Oxford: Blackwell

> picture of it—for instance a blurred picture, or a picture of 30,000 here and 40,000 there.(LFM XXI, p. 201).

For Wittgenstein the laws of logic are constitutive of a way of acting—They are not prescriptive. By maintaining an internal relation between the meaning of a proposition and an individual's understanding of that proposition Wittgenstein regards the laws of logic to be definitive of what counts as thinking. Rather than being prescriptive—determining what counts as correct thinking—the so-called necessary truths are considered to be internally related to our concepts of thinking, understanding, reasoning, and so on. Thus: "Recognising the law of contradiction" would come to: acting in a certain way which we call "rational". (LFM, XXI p. 201). This conclusion in no way supports the psychologicians' claim that the sense of an expression is a matter for psychology. A common recognition of the law of contradiction is not a matter of some inner mental process that when expressed in language triggers a similar process in the mind of the hearer. One manifests one's understanding of the meaning of a proposition by employing it in ways which accord with shared practices of employment, against the background of human life and activity. (Hacker, 1986 p. 80).

Conclusions

Baker (1988) notes that Wittgenstein's later remarks on the philosophy of logic are not well understood. He adds that the material is "extensive, diffuse, sometimes poorly organised..." (p. 112), a comment that Wittgenstein himself endorses in the preface to the *Investigations*. Most importantly, Baker adds that the connection between Frege and Wittgenstein is often poorly understood; some writers insist that Frege somehow anticipated the private language argument. Others suggest that Wittgenstein developed the ideas of Frege, to whom Wittgenstein gives credit. But Baker insists that to assume the relation between the Frege and Wittgenstein to be one of union and support is to be fundamentally misguided about the nature of Wittgenstein's works. Only by comprehending the subtle developments of Wittgenstein's thought, which challenged Frege's views of the philosophy of logic, can we understand the significance of the later writings to current philosophical practices.

Of particular importance here is Hacker's (1986) conclusion that:

> What does signal a profound change between the Tractatus and Wittgenstein's later philosophy is not a shift in his conception of scepticism nor his view about the proper domain of epistemology. It is rather his realization that the particular form of anti-psychologism in logic which severs the concept of meaning from the concept of understanding and allocates the account of the latter to psychology is wholly misguided. (p. 80).

Wittgenstein's later philosophy contains a unique orientation of philosophy to psychology. It is true that this conception arose out of the errors which Wittgenstein recognised in his earlier work though it is not necessary, and only really distracting, to examine the anti-psychologism of the *Tractatus*.[3] The important conclusion is that the division promoted by Frege arose out of an initial division between psychology and philosophy which promoted a comparison of illusory objects of inquiry within both disciplines. By recognising that it is the initial division between the disciplines that misleads us Wittgenstein reoriented himself to the study of both logic and understanding. The bogus objects set up within the marriage of Cartesianism and Platonism, and their respective considerations within psychology and philosophy, betoken the confusions which are inherited within modern understandings of the relationship between psychology and philosophy.

To appreciate the unique approach Wittgenstein offers it is necessary to regard his approach as indirect. Wittgenstein did not enter the traditional debate—he saw it as the source of confusion:

> 'A proposition is a queer thing!' Here we have in germ the subliming of our whole account of logic. The tendency to assume a pure intermediary between the propositional *signs* and the facts. Or even try to purify, to sublime, the signs themselves.—For our forms of expression prevent us in all sorts of ways from seeing that nothing out of the ordinary is involved, by sending us in the pursuit of chimeras. (PI §94).

But care is needed in the light of this orientation. Wittgenstein recognised that the defence of the purity of logic was in itself the source of confusion. It set Frege in the pursuit of a mythical realm to accommodate his Platonistic logical entities. Wittgenstein's new orientation to the nature of logic has not only a profound impact on the nature of philosophy but on psychology as well. Hacker (1986 p. 80) footnotes:

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[3] Wittgenstein,L. (1961) Tractatus logico-philosophicus. tr D. F. Pears and B. F. Mc Guiness. London: Routlege and Kegan Paul.

> One might say that Wittgenstein did not merely repudiate anti-psychologism in logic (if that means the irrelevance to logic and logical relations of any psychological experiences or processes that accompany reasoning) but carried its banner into the heartland of *psychology*. For it is a deep error to conceive of understanding, meaning something, or thinking as essentially involving or requiring any mental acts, activities, processes or experiences. For these things are typically mere *accompaniments* of understanding, meaning and thinking.

Thus in psychology we are equally confused by the dominating picture which develops by adopting the Cartesian conception of the relationship between philosophy and psychology. If we separate philosophy from psychology we (Psychologists) can be led to equally nonsensical pursuits. In the following chapter it is argued that the cognitive orientation to psychology pursues a nonsensical task by failing to appreciate the logical character of the concept of 'thinking'.

Popper, like Frege, abandons consideration of the logical character of the process of grasping the sense of a discovery, proposition, or creative act. The bifurcation of the mental act and the act itself presented by Frege continues in the same tradition within Popper's account of the philosophy of science. In particular Popper regards the study of creativity to be the task of psychology, he casts it off from philosophical consideration. In the same way that Wittgenstein reconciles the relationship between understanding, meaning and language by attending to the logical character of understanding and the use of expressions within a practice, it is possible to provide a Wittgensteinian analysis of 'creativity' in relation to its employment within psychology which demonstrates a radical divergence from traditional conceptions of the relationship philosophy has to psychology, or science generally.

Chapter Two

Rules and Rule-Following

Is there a 'why' in algorithm?

When we learn to spell words we do not find anything unusual about learning the word 'spelling', we do not find it to be a higher order word that requires a different attention, nor do we find it a word that is fundamental in a sense that it must be understood before any spelling can commence. We learn to spell as a result of a complex social activity, involving instruction, correction, and explanation of error and success. In psychology there is a research programme which claims to advance explanation of psychological phenomena by reference to a set of rule-governed functions, computable algorithms, which with sufficient complexity could not only explain psychological states, but produce equivalents of psychological states in mechanisms known as 'Universal Turing machines'. We must look to the reasons *why* we follow rules, and the status of rules and rule-following in explanation. Once it is clear that rule-following is an activity much like spelling and rules merely like the words to be spelled, we will see that this explanation of psychological states in terms of algorithms or functional states is not simply wrong, but simple nonsense. Trying to explain the activity of rule-following by reference to another set of rules is conceptually inept. It places us in the same position as trying to comprehend spelling by understanding the word 'spelling'.

Cognitive scientists endeavour to produce human abilities in artificial mechanisms, but only not human abilities like lifting an object, abilities of a fundamentally different sort. Cognitive scientists maintain that psychological processes such as perception, intelligence, and creativity can

be understood by analogy to the programming of a computer[4]. Psychological states, it is proposed, can be understood on the model of the hardware/software distinction of a computer. Cognitive psychologists seek a different outcome. They seek to ultimately reduce explanation to a functional description of the causal processes grounded in neurophysiology. Perhaps cognitive psychologists concede the impossibility of us ever producing artificial intelligence because computers are not made of the right stuff. Some might concede that we might never know the actual physiological processes which support the functional descriptions of mental states—Haugeland (1981 p. 264) proposes this possibility but adds:

> Nevertheless, I suspect that many investigators would strongly resist such a suggestion, and would feel their work was not done until the reduction was complete.

Whatever the reasons are that cognitive psychologists do not ally themselves to cognitive science they are not conceptual reasons. Whatever explanation is used to produce an account of psychological states, inner mental states, it is always at the bottom a causal account, or promises to be a causal account given further research or some extraordinary discovery in neurophysiology. Shanker (1991) argues: "To disclaim—on the grounds of neurophysiological ignorance—any knowledge of the relevant structures is not so much an evasion of duty as a confirmation of the mechanical picture which dominates here" (p. 73). These functional accounts of inner psychological states all have one thing in common: they have a conception of rule-following which suggests a logical compulsion to adhere to the rule. Rules, according to the 'cognitivists', by their very nature, must be obeyed, it is a rule that compels us to act, and a rule tells us whether we have acted in accordance or in conflict with a procedure. The 'mind' as an information-processing system takes an input, operates according a set of rules, and produces the output behaviour. The definition of the psychological state is determined not only by the behaviour but reference to the input and the operations according to the rules.

Block (1993) outlines the cognitive scientist's orientation to psychological phenomena with reference to the example of intelligence:

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[4]I think it is no coincidence that such desirable qualities are sought out for the subject material of the discipline, to my knowledge nobody has tried to produce an insane computer-except Boden(1987), a programme that failed, and perhaps in science fiction.

> Intelligent capacities are understood via decomposition into a network of less intelligent capacities, ultimately grounded in totally mechanical capacities executed by primitive processors. (Block 1993, p. 820).

Functional states are regarded as capable of being 'computed' in a machine. Most importantly the actual causal instantiation of the functional state is supposedly irrelevant to the concerns of cognitive scientists: How the processor works is: "...not a question for cognitive science to answer." (Block, 1993 p.820). Nevertheless, the ultimate grounding of the functional architecture is some causal process.

> The last intentional instantiation is in a primitive "machine language," so-called because that is the one which is finally reduced by physical instantiation. The real genius of computer science has been to design ever more sophisticated languages which can be compiled or intentionally instantiated in cruder existing languages. If it weren't for intentional instantiation, machines built of flip-flops and the like would hardly be candidates for artificial intelligence. (Haugeland, 1981 p. 263).

Thus for cognitive scientists the reduction of 'complicated' 'functional states' to simple mechanical processes becomes their primary task. The removal from concern of the actual causal processes is thought to promote the correct orientation to revealing the nature of psychological phenomena.

Imagine that Picasso was found to have produced his paintings by scattering tarot cards on the floor and that from this arrangement of cards he produced, according to some set of rules, the patterns which constitute his paintings[5]. We take Picasso's art to be creative, but according to the hypothetical constraints they are imagined to be the product of an algorithm. Surely a computer could also follow the rules which Picasso followed, in this imaginary situation, to produce similar work. Cognitivists suppose that in reality some similar set of rules occurred *within* the mind of Picasso. The task of computer scientists and cognitive psychologists is to describe those rules in order to explain creative thought. But how does the tarot card system differ from the rules: that in order to paint we must mix colours and apply the brush to canvas? Is the activity of painting to be understood as the product of some inner mental process? No art teacher would explain the technique of applying paint to canvas in terms of mental processes. We are caught in a muddle when we suppose that the correct

[5] Jack Copeland is responsible for the content of the example.

place to search for an understanding of mental states is within the individual. Wittgenstein's private language argument is thought to be able to free us from this type of philosophical error. However it will be argued that arguments directed against the cognitivists based *solely* on the conclusions of the private language argument will not succeed.

Many opponents of the cognitivists admit to some influence from Wittgenstein's later writings, for example: Coulter (1973), (1979), (1982); Harré (1988), (1989a); Malcolm (1971); Shanker (1987, 1991); (Goldberg 1991); Hacker (1990) and Williams (1985). Wittgenstein's position will be dealt with directly in order to develop an account of rule-following—which will be used to identify the limitations of the constructionist doctrine (Chapter Four). It is the constructionists who rely on Wittgenstein's private language argument to support their identification of the meaningfulness of locating some mental states in social practices. Stuart Shanker (1991) suggests the Wittgensteinians, and presumably himself, are regarded as "field reactionaries"; partly because they react against theory construction within philosophy and partly because they refuse to share the 'excitement' of the 'revolutionary times' within which such things as cognitive science have developed.(p. 67). Social constructionists definitely react against cognitive and mechanistic theses with a revolutionary fervour, particularly with reference to Wittgenstein and the private language argument. However, while many philosophical arguments can be picked out of their original context and employed in philosophical psychology, it is argued here that a serious error results in adopting this practice with the conclusions of Wittgenstein's private language argument.

Rorty's defence against the Wittgensteinian Revolt.

Richard Rorty (1977) advances the view that those objections against such psychological research programmes as cognitive science, based on the "Wittgensteinian revolt against traditional Cartesian notions"(p. 153) are misdirected largely because the several arguments which rely on Wittgenstein's arguments are conflated and confused. The arguments are, according to Rorty: "...quite independent of one another, and of different worth" (p. 153). It will be argued that the arguments are not independent of one another; they form an alliance that is powerful indeed. Rorty quite

rightly points out, that the arguments are often presented independently from each other.

It should seem surprising that any confusion might arise as to what Wittgenstein's objections were to the notion that psychological terms such as 'thinking' might be usefully regarded as processes capable of being modelled or instantiated in artificial mechanisms; Wittgenstein was quite explicit in his denial of this possibility:

> 'Is it possible for a machine to think?' (Whether the action of this machine can be described and predicted by the laws of physics or, possibly, only by laws of a different kind applying to the behaviour of organisms). And the trouble which is expressed in this question is not really that we don't yet know a machine which could do the job. The question is not analogous to that which someone might have asked a hundred years ago: "Can a machine liquefy a gas?" The trouble is rather that the sentence, 'A machine thinks (perceives, wishes)' seems somehow nonsensical. It is as though we had asked" 'Has the number 3 a colour?' (BB. p. 47).

Wittgenstein's esoteric objection is directed at an altogether different question from that considered here. Whether a computer can literally think is different from whether psychology can be usefully informed by considering thinking in terms of the operations of a machine. Nevertheless, Wittgenstein's objection seems to cover both circumstances viz., it is nonsensical to consider, or explain, thinking in terms of the operations of a machine, *a fortiori* , it is nonsensical to suppose that a machine can think.

Baker and Hacker (1985) ponder over the significance of Wittgenstein's dealings with the foundations of mathematics to philosophical psychology. Wittgenstein was well aware of Turing's work and debated several issues with Turing in a lecture series in 1939 (see Diamond 1976). Much of the work dealt with in this chapter comes from Wittgenstein's remarks which are either directly related to the foundations of mathematics, or direct comments on Turing's proposals. Baker and Hacker (1985) suggest that Wittgenstein relinquished his considerations of the philosophy of mathematics in the *Philosophical Investigations*, perhaps as they propose to: "regroup his forces in waging a single philosophical strategy"(p. 4). Of those who agree that the private language argument is important to psychology, and psychological theorising, few are willing to explore the relation between this argument and the background from which it

undoubtedly arose. As a result most attacks on cognitive science, based on Wittgenstein's work deal almost exclusively with Wittgenstein's dealings with the philosophy of mind. This manoeuvre constitutes the first line of attack in the alliance of arguments suggested by Rorty. Like Rorty it will be argued that this approach is insufficient.

The 'No Private Language Argument'

The details of the 'private language argument' will be explored in more depth together with a consideration of the doctrine of constructionism (Chapter Three). The purpose here is to examine Rorty's proposed strategy for avoiding the issues that the argument raises. Rorty states the argument as:

> ...traditional psychology has assumed that we can identify mental entities apart from the behaviour and circumstances attendant upon them—as if we could simply introspect and christen the occupants of the mental arena. Once we realise that such christening is impossible and that it is not introspectible qualia which make something count as a thought or a belief or a recognition, we see that there is nothing inner to investigate. (p. 153).

Harré (1989a) suggests that psychology should adopt a dual ontology to deal with mental concepts which does not include anything 'inner' or 'mental'. That ontology would include everything physiological, the on-goings of the brain, and everything social, such that all mental acts would be characterised within the social events in which they occur. Harré's conception of psychology (examined in the next chapter) typifies the account which Rorty seeks to undermine.

What if there is no 'mental inner' which literally exists? What if Harré's suggested ontology is the correct ontology for psychology? What is wrong, *in principle*, with developing models of the mind based on computer analogies? Coulter (1982) dismisses, without argument, this proposal:

> They scarcely have the status of "holding devices', constructs which are meant as place holders until we have a better neurology to offer to the behavioural sciences... (p. 7).

Perhaps, to return to my example, cognitive scientists can provide an explanation of the rules which Picasso followed in his mind, it does not

matter what the mind actually consists of as Haugeland (1988) has suggested. This type of objection is Rorty's proposed defence for avoiding the issues that the private language argument raises for future psychological research. Rorty's criticism, informed by the history of science, is that we can benefit from these models without commitment to any ontology:

> No geneticist became disenchanted with the notion of a gene simply because DNA was a long time coming, and psychologists' faith in physicalism could doubtless endure centuries of similar waiting... (1977 p. 156).

Rorty argues that we can continue with the computer analogy and assume, for now, that 'thinking' can be understood against the background of the analogy. This argument might be discounted by being mindful of several failures in the history of science. For every successful model that has informed science there has been the predecessor which led 'astray' the thought of the time. Perhaps the model of physicalism is as misguided as phlogiston or alchemy. One might insist as Coulter (1982) does that certain claims really are intended as as ontological. However the problem becomes:"...we are ultimately left playing an exegetical game without really knowing the rules..." (Coulter, 1982 p. 7). Furthermore the exegetical game is not novel, as Shanker (1991 pp. 69-70) usefully informs in relation to a now defunked cybernetic programme for psychology:

> There is of course nothing to stop one from introducing a technical notion of 'cybernetic purpose' by which will be understood the state of equilibrium that the feedback mechanisms of a homeostatic system are designed or have evolved to maintain. But, as with the case of radical behaviourist theories, if the logico-grammatical distinction between purposive behaviour and causal sequences is undermined, the result is not a 'new understanding' of but, rather, the abandonment of the notion of (intentional) action and the creation of yet another misleading homonym.

A common criticism of arguments of the eliminative materialist persuasion is that reducing the meaning of psychological predicates to purely physical terms fails to capture or explain the way these intentional terms are used at present. Cognitivist's respond that there are levels of explanation, different levels at which the same behaviour can be described, and as such, there is no assumption that their technical notions need to account for present use of intentional concepts and as

such,"....philosophical objections which dwell on the logical grammar of ordinary mechanical versus intentional concepts are simply vacuous appeals to semantic inertia" (Shanker, 1991 p. 71).

For now we will entertain the idea that modelling psychological processes on the computer analogy could be regarded as pragmatically useful. We are better informed of the Wittgensteinian objection by addressing the issue that Rorty himself suggests:

> ...the 'no private language' argument and any similar line of argument against the possibility of interior ostention does nothing to impede any imaginable program of research in psychology. *It would do so only if one could infer from a doctrine about how psychological terms got their meaning something about the non-physical character of the entities mentioned in psychological theories* (in some stronger sense of 'non-physical' than simply 'psychological as opposed to physiological'). (p. 156) (Emphasis mine.)

Rorty's criticism of the 'no private language arguments' and his proposed strategy for avoiding his own criticism, (That we can say something about the non-physical nature of psychological predicates.), undermines his previous commitment to the idea that the various Wittgensteinian arguments are independent of each other. Wittgenstein, again, is quite explicit in his characterisation of the meaning of psychological predicates:

> One of the most dangerous ideas for a philosopher is, oddly enough, that we think with our heads or in our heads. (Z §605).
>
> The idea of thinking as a process in the head, in a completely enclosed space, gives him something occult. (Z §606).
>
> Is thinking a specific organic process of the mind, so to speak—as it were chewing and digesting in the mind? Can we replace it by an inorganic process that fulfils the same end, as it were use a prosthetic apparatus for thinking? How should we have to imagine a prosthetic organ of thought? (Z §607).
>
> But if thinking consists only in writing or speaking, why shouldn't a machine do it?
> Could it be in pain?
> It is a travesty of the truth to say 'Thinking is an activity of our mind, as writing is of the hand' (PG §64).

Wittgenstein would surely object to the notion that anything can be gained by considering 'thinking' to mean a physical activity of the brain. As Harré (1988) has recognised the commitment to physicalism manifests itself with

ontological commitments derived from, or akin to, Cartesian dualism. It is this underlying commitment to Cartesian dualism that is subject to attack in the private language argument. The rejection of this philosophical heritage accompanies any commitment to a 'no private language argument'. (The arguments all derive their importance from a particular conception of the nature of the relation between a rule and its extension. Both the private language argument, and the 'meaning as use' argument connect directly to this basic argument).

The above is obviously insufficient to show just exactly why Wittgenstein objects to supposing that the meaning of psychological concepts like 'thinking' can be related to the physical mechanisms of the brain, or for that matter a machine. However it does point to the fact that those various Wittgensteinian arguments offered by those who would reject particular characterisations of psychology, such as cognitive science, are not presented, or need not be presented, in isolation from other Wittgensteinian arguments. To carve up, and consider independently, the Wittgensteinian objections is to do an injustice to the scope and force of the Wittgensteinian attack—it allows Cognitivists to defer consideration of the criticism by forcing it to another area of inquiry: in this case the philosophy of science (Whether or not the adoption of ontological commitments is necessary for scientific endeavours). Nevertheless, those writers who focus almost exclusively on the Wittgensteinian arguments which deal with the philosophy of mind would be wise to consider the manoeuvre employed by Rorty on this occasion.

To respond to Rorty's challenge we must ask: why is it that the meaning of a term like 'thinking' cannot usefully be regarded as the on-goings of the brain, or the functioning of a physical system such as the circuitry of a modern day computer? The argument will deal with the concept of calculation as being a species of activity related to the concept of 'thinking'. Wittgenstein's strategy to avoid the proposals which encompass the cognitivist or mechanistic thesis involves meeting them on common ground. Wittgenstein will not even concede that a machine literally can 'calculate'.

The famous private language argument is thought to be the highlight of the *Investigations* as far as psychologists are concerned. If correct it repudiates a philosophy of mind and therefore promises to constrain and control various theorising in psychology. It is the Cartesian ontology,

separation of the mind and body, which is the most obvious philosophy covered by the Wittgensteinian attack. This Cartesian ontology is a "disease of thought" according to Hacker (1986 p. 246) He states:

> It is important to note that the most adamant anti-Cartesians such as central-state materialists or computational functionalists harbour this infection in subtle and not easily detectable forms.

But Rorty's objection, and a typical defence from computational functionalists, is that these cognitive scientists can use the model of the hardware/software distinction and the functional description of mind, to advance theory in psychology without needing to fit the model into some ontology of separating mind and body. If the ontology is really necessary then some day it will be produced. Who really cares what Wittgenstein had to say about 'pains' and Robinson Crusoe on an island? Rorty states:

> ...its is hard to see the relevance of the point to psychological research. Still, it must be admitted that Ryle and Malcolm, among others, have thought it relevant, and have concluded from *this argument alone* that there is something dubious about looking for 'psychological mechanisms'. (p. 154).

Rorty's insistence that the private language argument cannot defeat those claims made by cognitive psychologists stands. Even if one is committed to the idea that it makes no sense to define psychological predicates by interior ostention, this is insufficient to discount the claim that a psychological state, such as 'thinking', can be usefully modelled in a machine. The constructionists would argue that psychological predicates obtain meaning only within a social context, or perhaps a 'form of life', and that the meaning of psychological terms should be derived from their use in a social context. They suggest that it makes no sense to locate the reference of a term like 'thinking' within the individual. It simply makes no sense to look for a 'mental inner'. The cognitivists can disagree. As mere place-holders awaiting ontological verification from neurophysiology their models are potentially useful, they help us organise our conceptions of how we process information. There is nothing upsetting in attributing the concept of 'thought' to objects. I can say that my car has, "A mind of its own" (This is not a senseless claim), without any disturbance to our use of language. I have not said something as odd as, "I can produce a the proof of a heptagon." (This is a senseless claim, since one cannot divide 360° by 7 evenly) The cognitivist's would assert that they can operationalise their conception of thought, as with the Turing test, and await an outcome. The

cognitivist's can deny that they are locating thought within the individual. Those who use the private language argument against the cognitivists cannot produce an *a priori* reason to dismiss the cognitivists' proposals and must simply beg to differ.

Harré (1988) as an example of the 'No private language argument'

Harré (1988) argues against the artificial intelligence (AI) programme using Wittgensteinian arguments. Harré criticises the cognitivists in order to gain a contrast to support his proposed research strategy for psychology. Harré is almost unique in his application of these arguments, only Coulter (To my knowledge) is also motivated in this direction. But Harré (1988) relies on an unexplicated account of the notion of a 'form of life' which has consequences for his later dealings with the methodology of psychology.

Harré adopts the Hintikkas' (1986) expression of "physiognomic language game". For example, 'pain' is naturally expressed by certain behaviours. When in pain it is natural to wince, cry out, grit one's teeth and grasp the affected area to make oneself more comfortable. Such behaviours are also associated with verbal activities and it is these verbal reports which are covered by the notion of 'physiognomic language games'. The verbal reports should be considered in the same way as the natural expressions of pain. It is almost inconceivable that an individual might not express pain behaviour when in real pain, or worse, cry out claiming joy and salvation whilst suffering from a heart attack. Although such situations may occur, it is hard to understand how we could have a conception of pain without pain relating this concept of pain to the natural expressions of pain[6]. (This notion is explored at length in Chapter Four). It is because we have natural expressions of pain that we obtain a grammar of the word pain. If there were no natural expressions we might not have any use for the concept of pain. At least the language-game would be radically different. Harré states "We could say roughly that a sensation word could have a meaning, that is

[6] Suppose through some ailment or genetic disorder the person did not feel pain. A nail through the arm would not lead to any natural expression, but of course the person is not in pain. If the person is in pain then there will be the natural expression of pain. For now we ignore the idea that someone might feign injury for some purpose and assume that the natural expressions of pain are linked causally to the individual's sensation of pain.

a conventional use, *only* if there were such natural expressions." (p. 107).(Emphasis mine.)

According to Harré, linguistic behaviours replace, or accompany natural expressions. Words are used as part of the natural expression of a particular sensation: "Thus saying,"'I've a maddening itch', could come to serve as a natural expression of itching as good as scratching and writhing." Either the action or the avowal serves as an expression internally related to the feeling. Our sensation language is what enables us to consider and discuss our personal sensations, it is the language (broadly conceived) which is available to us as investigators of subjective states. Harré (1988 p. 108) states:

> ...the Wittgenstein account of the conditions under which the sentence could be used meaningfully by a being *absolutely requires the existence of physiognomic language games* in the course of which the above sentence comes to be substituted for or supplements the natural expression of the feelings. What would be the natural expression of pain, ecstasy, aching, a tickle and so on for a PC? (Emphasis mine).

But surely it is appropriate to ask: what is the natural expression of thought, creativity, consciousness, or cognition? Harré surely misdirects his attack against the cognitive scientists. No cognitive scientist, that I am aware of, has ever made the claim that 'pain' can be modelled in a computer system. (Gunderson 1985 calls such things "program-resistent"). Whilst there is pain and the sensation of pain, natural expressions of pain like groaning, wincing and so on, there are no equivalent natural expressions for thought. The causal relation between pain and natural expressions of pain is not present in many activities targeted by cognitivists. As Pears (1988) points out:

> Speaking a language, unlike writhing in pain, is an artificial accomplishment with standards of correctness which have to be learned and maintained. (p. 333).

The natural expressions of pain behaviour allow us to suppose that pain is present in an individual. It surely is inconceivable that someone who has sliced their leg off with a chainsaw, and manifest the symptoms normally accompanying pain, could not be in pain. The necessity here is related to

the causal link between the lesion and the sensation[7]. However, the correct result in a statistics exam—which I might take to be a criterion for attributing 'thought'—does not allow us to infer that the individual knows something about statistics (The person may have cheated from his neighbour). Wittgenstein is quite clear:

> Misleading parallel: the expression of pain is a cry—the expression of thought, a proposition.
> As if the purpose of the proposition were to convey to one person how it is with another: only, so to speak, in his thinking part not his stomach. (PI§ 317).

There is no *natural* expression of one's aptitude in a statistics examination (There is a public expression of aptitude but it is not *natural*). In the former case the natural connection (a condition of our physiology) between pain and pain behaviour allows us to make the inference with certainty. In the latter case there is no such certainty.

A cognitivist interested in creativity would dismiss Harré's considerations as irrelevant. There is no natural expression of creativity. But Harré claims:

> If I am right in thus dichotomising his [Wittgenstein's] ontology for the mind there is no place for a mental substance, and, as I shall show, it puts paid to *any* form of AI. (p. 105).

Harré might be right with his supposed ontology, it will be argued that he is, but his argument thus far is unconvincing. The fact that some sensation states have natural expressions unavailable to a computer by any means which is scientifically enlightening[8] does not defeat the claims made by cognitivists. They can simply ignore those psychological phenomena which have such physiological accompaniments. Few cognitive scientists would be so bold as to suppose that everything that a psychologist can turn his or her attention to can be explained by their doctrine.

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[7] I could imagine someone who would not cry out from a lesion, even from such a traumatic experience as having one's leg chopped off. A genetic disorder might be the reason, or perhaps some disease. What I cannot imagine is someone in pain showing absolutely no sign of discomfort.

[8] It is possible of course to provide a computer with a 'pain sensor' that has the causal equivalents of pain in a human being. But this is unilluminating for we would know all about pain before we modelled it on the computer. The point of the cognitivist doctrine is to explain things functionally without recourse to the 'hardware level'.

Harré's argument decomposes into a variant of the 'no private language argument' which Rorty claims will not defeat the cognitivists. Harré presents a weak attack because he relies entirely on the private language argument and a corollary of that argument concerning natural expressions such as pain behaviour. Harré (1988) states:

> We understand each other's English words because we share a form of life, and in particular we share more or less the same repertoire of natural expressions of feeling, just because they are natural. It seems that *on this ground alone* the use of the AI model cannot be based on the assumption of a common use of English between ourselves and our PC. (1988 p. 109)(Emphasis mine).

It will be explained why it is that a computer cannot follow rules in the same way we can and therefore not participate in our form of life. But Harré leaves this untouched and does not explore why it is that a computer cannot engage in our form of life—except in the very limited sense that a computer has not the physiological properties that allow for it to usefully engage in a physiognomic language game. (It makes no sense to suppose that a computer can engage in a physiognomic language game). Harré slides from considering these limited cases to all cases of human 'forms of life', including 'thinking'. Harré arrives at the point where he asserts the 'no private language argument':

> If we are to bring people and machines together under the concept of thinking it can be only one way. The people's concept of data, etc, must be shown to be ontologically identical with the physicist's machine concept of oriented magnetic fields. But this identity cannot be seriously proposed since the symbolic entities of human thought become such through their use in a human form of life, not through any particular physical properties that make them fit for processing. (p. 114).

But Harré's use of 'form of life' here is not clear. Why can a computer not participate in a form of life (excluding those forms of life covered by physiognomic language games)? In what way are those 'symbolic entities' not fit for processing? How does 'processing' relate to a 'form of life'?

According to Wittgenstein the connection between rules and rule-following is logical not causal (I will explain this further shortly). We participate in forms of life and therefore engage in rule-following activities which are determined by the normative criteria that encompass that activity. Any suggestion that we can understand psychological states by

comparing the programme or functional state of a machine to those normatively defined activities is simply nonsense. In the former case rule-following is causal, in the later it is defined normatively. Nevertheless, Harré has not made this connection and so he presents an unconvincing attack on the cognitivists.

It can be seen that there is much confusion concerning the status of the private language argument when applied to psychology to the extent that it is often considered irrelevant to psychology. Indeed when the private language argument is used as the sole basis on which criticism of psychological theorising is advanced the attacks are easily ignored.

A more forceful argument can be derived from considering Wittgenstein's account of rules and rule-following. Wittgenstein's earlier work in *Remarks on the Foundations of Mathematics* forces us to question the underlying structure of the *Investigations*. It is argued here that the private language argument is a corollary of a broader argument, not the pinnacle of Wittgenstein's dealings with the philosophy of mind.

The Later Wittgenstein's account of Rules and-Rule following

Here Wittgenstein is followed closely. The reason for this will become apparent when social constructionism and the implications of rule-following within that doctrine are considered in Chapter Four. This notion of rule-following taken from Wittgenstein will show why some constructionists have not adopted a full account of the Wittgensteinian arguments and also show how they represent the notion of the correctness of a rule as being transcendental to rule-following contained within a social practice. Rules are considered central to the constructionist doctrine. Conversational rules, linguistic conventions and moral and social prescriptions are all considered essential to determining the nature of any particular psychological question. It is essential that an understanding of rules and rule-following be developed.

The goal of Wittgenstein's early work was to find the essence of any possible language. Wittgenstein shifted his ideas gradually from first considering language to be a calculus of hidden rules; language operated according to a system of rules, and any possible language must have this logical structure. Wittgenstein at one time compared language to a game of

chess but abandoned this analogy when he realised the limitations of comparing language to a calculus. Wittgenstein accepted many errors in his original conception of language, and settled on viewing language as a:"...many-faceted rule-governed *activity* or set of activities" (Baker and Hacker 1985 p.38)(This is dealt with again in later chapters). Language, according to Wittgenstein, can be compared to playing a game according to certain rules. The task of philosophy is to clarify the nature of those rules. It can be no surprise that an understanding of rules and rule-following is fundamental to Wittgenstein's analysis of language. The point, for now, is that Wittgenstein's conception of rule-following has a long history of considering many alternatives, and should be seen in contrast to the original consideration of rules as they are formulated within a calculus.

The first, and essential, point from Wittgenstein is that adherence to rules and rule-following are different. The fact that it is possible to construct a rule to accord with a given regularity of human behaviour does not entail that the individual under observation is following a rule. Consider:

> There might be a cave-man who produced regular sequences of marks for himself. He amused himself, e.g., by drawing on the wall of the cave:
> -.--.--.--.--.
> or
> -.--..---...----....-
> But he is not following the general expression of a rule. And when we say that he acts in a regular way that is not because we can form such an expression. (RFM VI, §41).

We must not be inclined to think that because we accord with a rule we are necessarily following a rule. We do not follow a rule just because we accord with it. When we follow a rule we do so *because* of the rule. The relation between a rule and rule-following is not accidental. But what does the *because* mean here? Wittgenstein's objection to presenting the notion that a computer can think should be seen against this background, he wants to deny that an outcome of an algorithm which is *causally* determined can be taken to mean 'following a rule'. We may suppose that a computer follows a rule because it accords with some regularity but this does not entail that it is literally following a rule.

Ultimately it is argued that the concepts of 'thinking' and 'rule-following' can only be considered as normative activities. Thus the connection to the problem which initially frustrated Wittgenstein: logic is not fundamental

or independent, it does not stand above language. In the sense that we are guided by logic and we are governed by normative procedures we are also guided by normative procedures when we engage in other activities, such as thinking.

The private language argument relies, in part, on a distinction between following a rule and being under the impression that one is following a rule. Wittgenstein remarks:

> Are the rules of the private language impressions of rules?— The balance on which impressions are weighed is not the impression of a balance. (PI§ 259).

Even if we sincerely believe that we are following a rule it may be the case that we are not following a rule. We cannot look inwardly to know what accords with a rule; rule-following is a normative procedure it requires independent verification from a public context.

> ...hence also 'obeying a rule' is a practice. And to *think* one is obeying a rule is not to obey a rule. Hence it is not possible to obey a rule 'privately': otherwise thinking one was obeying a rule would be the same thing as obeying it. (PI§ 202).

The private language argument will be dealt with further, in Chapter Three, but for now it is appropriate to consider the private language argument to be an extension of what Wittgenstein had to say on rules and rule-following. The Wittgensteinian objection to the notion of a computer thinking cannot be justly served by the consideration that 'thinking' is a normative term derived from a complex set of essentially social practices in which a computer could never engage. While the private language argument is often used in an attempt to persuade us of this point it fails because it is presented without the supporting arguments which Wittgenstein laid down in his previous works.

To suppose that someone is following a rule it is necessary to examine the circumstances in which we can attribute to someone or something that they are indeed following a rule.

> If one of a pair of chimpanzees once scratched the figure |--| in the earth and thereupon the other the series |--| |--| etc., the first would not have given a rule nor would the other be following it, whatever else went on at the same time in the mind of the two of them.

> If however there were observed, e.g., the phenomenon of a kind of instruction, of shewing how and of imitation, of lucky and misfiring attempts, or reward and punishment and the like; if at length the one who had been so trained put figures which he had never seen before one after another in a sequence as in the first example, then we should probably say that one chimpanzee was writing rules down, and the other was following them. (RFM VI, §42).

According to Wittgenstein rule-following must take place within a context of learning to apply rules, making mistakes, being able to explain the use of those rules, by reference to those rules, when questioned. These capacities amount to an agent having an ability, or the often quoted "mastery of a technique" (PI§ 150). Wittgenstein wants us to accept that the meaning of a term is manifest in how we use the term. To understand a term is to use it correctly and be able to explain that use to others. Most important is the idea that we are able to explain action, or our use of a term, with reference to the rules for its application. An explanation of the use of a term is bound within the rules for the application of that term, within a practice. My adherence to a rule, is internally related to the explanation I give for following the rule.

But how does an explanation of a rule determine the complex use of an expression—for any rule can be variously interpreted? Cognitive scientists want to say that following certain rules can lead to understanding; I understand because I followed the correct rules. They want to say that 'thinking' can be used in a way in which the explanation of the use of the term is through an account of rule-following which is contradictory to that which Wittgenstein presents. But if the meaning of a term is its use within a practice, how does an explanation of that use within a practice determine meaning? How would this discount the possibility that thinking might mean the operations of a computer?

A Dog in the Park

Suppose I am intending to walk my dog in the park. As I enter the park I come across a not so unfamiliar sign which states: "All dogs in the park must be controlled." I wish to comply with the sign, noting the five hundred dollar fine which accompanies any breach of park regulations. But my willingness to comply is disturbed by the philosophical insight that it is

entirely ambiguous as what 'controlled' actually means in this situation. The request would be clear if the council had written: "All dogs must be kept on a leash at all times." Surely the dog would then be controlled. Whilst my dog could be leashed, I remain firm in my conviction that my aging, tired, dog would be perfectly controlled if let off the leash provided I kept an eye on her at all times. I believe the dog will respond to my whistle and return in the event that some other person with a dog in the park enters my vicinity. (My dog reacts in an aggressive manner towards other animals.) The question of interest is whether I am in fact following the rule that 'all dogs must be controlled in the park'. What entitles me to interpret the ambiguous term 'controlled'? What counts as not following the rule? I believe that I am following the rule but suppose the dog runs off, does not respond to my whistle, and savagely attacks a small poodle. Could it then be said that I was following the rule?

To relate rule-following to understanding it must be accepted that my reasons for my actions are related to my interpretation of "controlled". I believe that my dog is controlled when unleashed so this becomes an explanation for my action. Suppose that a park official finds me walking the dog and inquires whether I am aware of the sign. My explanation would involve my explaining that I believe my dog to be 'controlled'. I whistle and my dog dutifully returns. I have demonstrated my understanding of 'controlled' to the official and this entails my reason for my action (i.e. having the dog unleashed).

Nothing in my understanding or interpretation of the sign *causes* me to behave in the way I have. I could just as easily have interpreted the sign to mean that I must have the dog on a leash at all times. Even then it is open to interpretation as to whether my dog is controlled. Suppose my dog breaks free from my hold, and with leash trailing it pursues a small poodle with the vigour that accompanies the instincts of a large dog. The point here is that a rule does not stand above both my action and my interpretation of the sign. I am not forced to comply with the sign by my interpretation, and the rule, in this case the sign, does not determine what actions accord and conflict with it.

Baker and Hacker (1990) write:

> A being can only be said to be following a rule in the context of a complex practice involving actual and potential normative activities of justifying, noticing mistakes and correcting them by

> reference to the relevant rule, criticising deviations from the rule, and, *if called upon, explaining an action as being in accord with the rule or teaching others want counts as following a rule.* (Emphasis mine).(p. 165).

It should be obvious that in my example I could be convinced by the park official that 'controlled' really means 'on a leash'. Suppose I completely misread the sign (suppose I was German and not familiar with English but followed the customary practices of my home town.) Once informed that the sign really means:"All dogs must be on a leash." I should comply at once by correcting my mistake.

To foreshadow later discussions of creativity I have placed emphasis in the preceding quotation concerning a particular circumstance which can arise. Suppose that the park official and I disagree as to the meaning of "controlled". I maintain that my dog is perfectly controlled off the leash but he insists that large dogs should always be leashed to protect the odd straying miniature poodle. I refuse to comply with his request to leash my dog and as a consequence I am summoned before a local magistrate. I am to face a charge of breaching park regulations, s(4): Failure to have a dog controlled in the park.

The magistrate remarks that never before has she been called upon to decide such an issue as whether an unleashed dog is 'controlled'.[9] But my apparent breach of park regulations is defended with a brilliant argument from my lawyer who convinces the judge that my unleashed dog was indeed controlled. My lawyer's argument rests almost entirely on the point that it was unfair of the park official to discriminate large dog owners from small dog owners in the interpretation of the word 'controlled': as no other dog was actually injured there was no evidence to believe anything but that my dog was indeed 'controlled'. Within the narrow realm of legal social practice my lawyer's argument has convinced others (The park official and all others who have the same problem) what 'following the rule' in this situation amounts to.

The point is not to show the applicability of a Wittgensteinian account of rule-following to legal practices, but to demonstrate breaches of standard interpretations can be defended successfully in such a way as to change the social practice. Wittgenstein made a similar point in relation to logical

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[9] The general form of the issue in question is often dealt with by judges by examining legislation and precedent.

proofs. Baker and Hacker (1985 p. 6) report: "A proof establishes internal relations; it connects concepts and thereby contributes to their identity. It creates essence by extending grammar. Proofs and calculations are thus radically unlike experiments (empirical verification)." Later a conception of creativity will be defended based on this analogy and show how theory can alter our conception of scientific evidence (Chapter Five pp. 183-192).

Returning to the question of what Wittgenstein means when he suggests that the question "Can a machine think?" is somehow nonsensical and that 'thinking' is something non-physical. Wittgenstein asks:

> What sort of machine? One constructed of the usual materials— or a super machine? Are you not confusing the hardness of a rule with the hardness of a material? (RFM II, §88 p.110).

A calculus or an algorithm which guides a computer is not the same as the rules which guide and govern human behaviour. The reference to the hardness of a rule is meant to expose this point. It is a mistake to consider that a formula or a general expression of a mathematical rule causes an individual to follow a mathematical series (In the same way that my interpretation of the sign in my example does not cause me to accord with the sign's prescriptions). Any rule or formula is underdetermined by what may accord with it. For example, any continuation of the series, 0, 2, 4, 6,..., will, on some interpretation accord with the series. So it cannot be the case that my understanding the formula n=n+2 causes the response 8, 10, 12,..., for any other continuation is logically equivalent (PI§ 151). What makes my continuation of the series correct is the *context* in which that continuation is *used*. My continuation has meaning to others by its use in a practice, my explanation of the continuation might refer to the formula n=n+2, but the formula is not an explanation of why I am correct with my continuation of the sequence.

The algorithms, or potential algorithms, which are used to support functional descriptions, or the efficacy of functional descriptions, of mental states, rely on an account of rule-following which cannot be supported by the account of understanding which Wittgenstein develops. How can the computer which is caused to respond to the rules of an algorithm explain its action in accordance with normatively defined rules? The computer's actions are determined by the algorithm, it must follow the rules. The state of the machine is causally determined by the 'material hardness' of the mechanistic procedures it follows which are, on Wittgenstein's account,

fundamentally different from the reasons which I invoke to explain my actions which are determined by a logical (internal) connection with the criteria which accord with them (The logical determination is 'harder', fundamentally different from, the material determinant of a machine). I explain my actions not according to the causal determinants of my neurophysiology but with reference to the normatively defined rules which I interpret within a social practice. A computer must explain its actions with reference to its programme. Put another way, functionalists explain actions, and psychological states, according to an algorithm or programme.

Suppose though that we change our conception of thinking within our social practice, as Wittgenstein must allow. Suppose that the cognitivists act like the lawyer in my example and attempt to provide an explanation of the meaning of thinking, this time not to a judge but to an intellectual community, in terms of algorithms, or perhaps 'C fibre firing' in the neo-cortex. And this is surely what they are trying to do! Cognitivists can insist that we change our conception of the meaning of thinking so that it accords with their research programme. No argument based solely on the conclusions of private language argument will defeat this line of reasoning. Even given the conclusions of the private language argument: the suggestion that 'thinking' does not refer to the action of pointing to 'an inner state', this will not remove the cognitivists' right to demonstrate an alternative. But if the cognitivists are to pursue this programme and attempt to change, I should say demonstrate, the meaning of 'thinking', or any other psychological predicate, they must adopt *per hypothesis* the account of rule-following that Wittgenstein suggests. And this is precisely what they cannot do!

A cognitivist inclined to the view that the meaning of a psychological term, like thinking, can be expressed in terms of a neurophysiological state, perhaps 'C-fibre Firing', cannot concede that we may all change our use of the term 'thinking'. This would involve an unexplicated account of the reasons why we come to normatively define 'thinking' as 'C-fibre firing'. An attempt to avoid Wittgenstein's argument in this way concedes his conclusion.

To undermine the legitimate 'move' made by those who would defend the claim that the mental can be modelled on the machine analogy Wittgenstein enters the game that his opponent plays. Wittgenstein first objects that 'thinking' is normatively defined by characterising the internal

relations between meaning, thinking and understanding. The cognitivist, not persuaded by the fact that we do not use thinking in the way he or she proposes suggests that it is possible in the future that 'thinking' will be defined in the way desired: that is, refer to some inner causal process. Wittgenstein leaves open the possibility that language might change since normative practices, by their very nature, must be allowed to change across history and cultures. But the suggestion by the cognitivist that the concept of 'thinking' might change across time does not address the underlying features of language which Wittgenstein presents—it concedes that something other than a causal process promotes a change in our language. The 'move' relies on the normative nature of language, which Wittgenstein represents, to avoid the criticism. And as Wittgenstein is quick to point out this is an illegitimate move: a nonsensical claim which promotes nonsensical pursuits.

Understanding a rule takes place against the background of normative activities which are absent in the case of a machine. Whilst a computer can 'play' chess, it surely lacks any understanding of concepts such as 'winning'. Whilst it is the case that a computer can win against an opponent, the concept of winning incorporates a number of situations which the computer does not experience: winning in different circumstances, accepting congratulations, complimenting the opponent on their game and many other imaginable circumstances besides. A chess computer can win at chess, but not possess the concept of winning.

What if everything in our experience were made available to the computer? Surely what is lacking in the computer analogy is *all* the rules which it can learn through experience. The problem with this conception is that it requires severing the internal relation between a rule and its extension. On this account agreement with a rule would be those things which satisfied it in experience. Wittgenstein regards the relation between a rule and the criteria that satisfies it to be logical not contingent on some experience. Thus, when discussing such things as one's intentions, if my intention is to jump in the air then 'jumping in the air', i.e that is leaving the ground by action of one's legs, satisfies the intention not the actual experience which follows from my intention.

> I believe Russell's theory amounts to the following: if I give someone an order and I am happy with what he does, then he has carried out my order. (If I wanted to eat an apple, and someone punched me in the stomach, taking away my appetite,

> then it was this punch that I originally intended.) (*Philosophical Remarks* § 63 cited in Shanker, 1989 p. 75).

If we only learned as a result of experience what was in accord with the rule, in this case a command, then whatever event occurred would have to be deemed the meaning of that command or the nature of that desire. Indeed as Shanker (1989 p. 75) usefully adds, it is only due to the internal relation between a rule and the criteria that satisfy it that:

> ...it makes sense to speak of disobeying an order, failing to act on one's intentions, satisfying one's desires or attaining one's goals—and knowing when one has done so."

By abandoning the internal relation between grasping a rule and understanding the criteria which accord with the rule one disrupts the normative nature of the meaning of psychological predicates. By treating psychological predicates as referring to causal processes one is tempted to treat 'breaking rules' as a 'breakdown of the machine'. (This picture prevails in clinical psychology and psychiatry where the search continues to understand the nature of breaches of normatively defined moral rules in terms of causal processes.—see Chapter Four).

Wittgenstein directly attacks the view that a computer might literally calculate by considering the context in which it makes sense to speak of calculation:

> Does a calculating machine calculate?
>
> Imagine that a calculating machine comes into existence by accident; now someone accidentally presses its knobs (or an animal walks over it) and it calculates the product of 25 X 20.
>
> I want to say: it is essential to mathematics that its signs are also employed in *mufti*. (RFM IV, §2, p. 133).

Essential to the understanding of the product is some social[10] context in which it is interpreted. It is only within this social context that it makes sense to talk of calculation. The symbols of mathematics have sense only through their use in a social practice. Time is a concept which has meaning,

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[10] The distinction between public criteria and social criteria is fully investigated in Chapter Three. It is slightly misleading to suggest that some social context is essential—but a desire for clarity prevails here.

not because the earth spins on its axis in relation to the sun, but because we are there to observe the phenomena and make use of the regularity.

Consider the student who instead of working through all that is necessary to test his understanding of statistics, sneaks a portable computer into the examination. The rules that the student follows to achieve the correct results are not those which demonstrate an understanding of statistics (For the student cannot explain his actions for achieving the correct result by reference to the procedures for determining the answer; he can only explain his rules for the use of the computer). One might want to say that the student could follow the rules which the computer follows quite mechanically, by rote learning, and therefore demonstrate the correct requirements for passing the examination; the computer here just saves the ordeal of learning by rote the rules and inferences necessary. We could still say that the student knows nothing of statistics and cannot explain the various rules of inference for gaining the correct results. (A discussion of the Chinese room argument is begging here, but for now it remains wanting—cf RFM, IV §3 p. 133).

Wittgenstein asks us to consider calculating devices which occur in nature in impenetrable caskets (RFM IV, §4, p. 131). Suppose people use them like the student in my example to calculate, but know nothing of calculation. These people, Wittgenstein insists, are experimenting when they operate the devices. Baker and Hacker (1990 p. 166) suggest that these people could make predictions as a result of their experimentation, but no matter how accurate these turn out to be, they could not calculate with the device any more than one can calculate with a crystal ball. The rules of mathematics are absent in Wittgenstein's thought experiment. Without the justification provided by a context in which those rules are interpreted and understood the displays on the imaginary machines are meaningless. Although one might imagine that they could gain meaning to the society. Suppose they decided the fate of criminals by the last number which appeared on the display after random input and some operation. But then the calculations of the machine would not be calculations in the sense we use calculations for there is no explanation of the product of the numbers by reference to the rules followed to produce that number. The numbers might gain meaning but 'calculation' would not.

Being forced by the rules of a programme to derive an answer is not calculating. The outcome is not normative, it is causal. What makes the

answers correct is their use in a context outside of mathematics. The statistics examination requires the correct answers, and the examiner determines whether the answers are correct or not. viz., not the calculating machine. Consider:

> 'We are calculating only when there is a must behind the result.' But suppose we don't know this must, is it contained in the calculations all the same? Or are we not calculating, if we do it quite naively?
>
> How about the following: You aren't calculating if, when you get now this, now that result, and cannot find a mistake, you accept this and say: this simply shows that certain circumstances which are still unknown have an influence on the result.
>
> This might be expressed: if calculation reveals a causal connection to you, then you are not calculating.
>
> Our children are not only given practice in calculation but are also trained to adopt a particular attitude towards a mistake in calculating, towards a departure from the norm.
>
> What I am saying comes to this, that mathematics is *normative*. But "Norm" does not mean the same thing as "ideal".(RFM V, §42, p. 190).

A machine cannot be used to make a calculation independently of the human conventions for assessing the results.

Maybe we are not required to know reasons behind our inference, maybe we just achieve the correct result by force of habit. Often we appear to calculate mechanically, say by just responding "thirty-six" to the question, "What are four nines?" Wittgenstein's comments on machine calculation come to the point which is undoubtedly the most essential to grasp for further considerations on the nature of psychological inquiry and the mistake of the cognitivists. Rather enigmatically Wittgenstein remarks:

> 'If calculating looks like the action of a machine, *it is the human being* doing the calculation that is the machine' (RFM III, §20, p. 119).

The fact that we can learn by rote, act like a machine, should not be confused with true understanding which is demonstrated in appraising, reappraising, making and correcting mistakes, etc. We can follow rules mechanically but something that follows rules mechanically is not literally calculating, or following a rule, even the human being who has no public

context for the results to be applied. (as in the private language argument). Wittgenstein states:

> One follows the rule mechanically. Hence one compares it with a mechanism. "Mechanical"—that means: without thinking. But *entirely* without thinking? Without *reflecting*. (RFM VII, §60, cited in Shanker, 1987, p. 640). (emphasis in the original).

Hacker (1990) directs this point against Turing (1950), the subject of Wittgenstein's attack, and suggests Turing: "conflated a human who is, as it were, a calculating machine with a human calculating mechanically." (p. 169). The point can be extended further to suppose that a whole tradition in psychology, that of cognitive psychology, has conflated interpretation of psychological predicates which may be viewed mechanically with explanation based on the positivist tradition of viewing explanation 'mechanically'. (This is the point I will return to in Chapter Eight and largely the issue discussed in Chapter One, viz. that logic should not be seen as foundational.)

Rorty maintains that in order to establish a cogent argument against the cognitive scientists we need to show that psychological predicates mean something non-physical. Wittgenstein argues that calculation is non-physical, rule-following is not causal but normative. Following a rule is not causally determined. The relation between a rule and following a rule is logical not causal. 'Non-causal' here means 'non-physical'. The physicalist's commitment to causal/functional descriptions makes 'thinking' inexplicable except in those limited operations where we have: "structures rigid and permanent enough to be computable". (Harré, 1988 p. 114). But what is enlightening about knowing the rules for mathematical inference and demonstrating that they can be achieved by a computer? Harré continues: "One wonders whether there is anything in this corner that is not already comprehended by that part of mathematics that has these general characteristics." (1988 p. 114).

Rorty's challenge has been met. If 'thinking' is operationalised for the purposes of the cognitive scientists we can only gain a small and unilluminating account of 'thinking' in psychology. That account of thinking is limited to those rigid situations when we follow an algorithm, a set of rules, or a technique, that is, when we calculate mechanically. But it makes no sense to say that one reconsiders mechanically, ponders mechanically, or reflects mechanically. 'Thinking' does not mean operating

according to an algorithm, it gains its meaning elsewhere. Cognitive scientists will never gain an understanding of 'thinking' no matter how they operationalise the concept, no matter how big or how powerful the computers become, no matter what algorithm they produce, because it makes no sense to say that a computer follows a rule, thinks, feels, or is conscious. Cognitive scientists entertain a philosophically unviable faith in their waiting for Rorty's 'psychological DNA'.

The infinite regress argument

The 'infinite regress' argument suggests that there is something within Wittgensteinian philosophy which will not allow for the idea of postulating entities within the mind with the same capacities of those we seek to explain (Kenny 1984). The problems contained in explaining the relation between an individual and the world are carried over to the postulated mental entity and its relation to the real world, so that nothing is explained.

Rorty maintains that this argument is independent of the 'no private language argument'. Malcolm, the subject of Rorty's attack, does not explicitly refer to Wittgenstein's comments on rules and rule-following. Nevertheless the connection is clear and its relation to the private language argument important, as we shall discover in the next chapter.

If we imagine that our ability to understand that forty-seven plus three is equal to fifty, by postulating a mechanism within the individual which has the ability to add, then we run into a problem which Barker (1990) calls, the 'saliency issue'. Suppose that I have a subroutine within my 'mind' which serves the function of addition. How do I know when to apply the particular function? Never mind the idea that rule-following has no application here, that we cannot literally follow a rule privately. What is always required when positing a rule is a further rule used to explain the application of the first rule. No rule determines its own use, any suggestion that this can occur leads us directly to the position which Wittgenstein argued against, which plagued traditional epistemology, and leads to the problems which are inherent in Frege's conception of logic. (examined in Chapter One).

Malcolm (1971 p. 391) presents these saliency issues differently:

> If we say that the way in which a person knows that something in front of him is a dog is by seeing that the creature 'fits' his Idea of a dog, then we need to ask, "How does he know that this is an example of fitting?" Does he not need a second-order Idea which shows him what it is like for something to fit an Idea? That is, will he not need a model of fitting?

Kenny (1988 pp. 127-136) calls the form of argument which Malcolm attacks, 'The homunculus fallacy'. Kenny calls the argument a fallacy because he suggests that those who use the argument make a move from true premisses to false conclusions. Fodor (1986 p. 129) discusses the problem openly:

> Since functionalism licences the individuation of states by reference to their causal role, it appears to allow a trivial explanation of any event E, that is, it appears to allow a trivial explanation of any observed event E-causer...In psychology this kind of question begging often takes the form of theories that in effect postulate homunculi with the selfsame intellectual capacities the theorist set out to explain...The burden of the accusation is not untruth but triviality.

Fodor goes on to suggest that the way to avoid the charge of triviality is to only postulate functional descriptions of 'E-causers' which are possible operations of Turing machines (Hopefully by now it is perspicuous that this restriction is not helpful at all). Kenny warns us that problems arise out of considering such arguments to be useful, even in the sense of being pedagogically useful in the way Rorty has suggested. Wittgenstein was forever warning us of the way our use of language can lead us astray so that we assert nonsense in the disguise of theory or philosophy. Kenny states: "One danger, then, of the homunculus fallacy is that in problems concerning perception and kindred matters it conceals what is left to be explained." (p. 127).

We are led astray by positing the homunculus Fallacy because we make a category error. According to Kenny, to contain information is to be in a certain state, whereas to know something is to possess a certain capacity. Kenny asserts that knowledge is a capacity, *pace* Fodor and others—who would suggest that knowledge of a particular can be described as a state. This category difference is important here only because constructionists, examined in the next chapter, follow this account directly to the view that psychology is better served by viewing a human being as the possessor of certain capacities arising out of their physiological constitution.

Constructionists maintain that capacities are best interpreted within a social context. Harré (1989a) makes particular use of the concept of a 'skill' which he suggests serves to bridge the gap between the physiological and the social. The importance of the homunculus fallacy is that it points to alternative considerations of the nature of psychological inquiry into mental states. Functionalists can avoid the argument by simply denying that there is anything circular in their line of reasoning by asserting that somehow there will be a causal account of their hypothetical mechanisms either at a neurological level, or, as in Fodor's case, by suggesting that we already have an idea of what can do the job, viz., universal Turing machines.

One might leap to the opinion that an argument against the cognitivists based on rules and rule-following is too strong, it destroys any hope of an empirical psychology, and leads us to the conclusions of Malcolm and others (cf. Williams 1985). But the destruction of the 'mental inner' does not disrupt empirical psychology, just that version of empirical psychology which would suppose that models of mental functioning are meaningful. Wittgenstein warns against this error through his imaginary interlocutor:

> "But how can a rule shew me what I have to do at this point? Whatever I do is, on some interpretation, in accord with the rule." (PI§ 198).

Those cognitivist's who wish to postulate rules for the determination of behaviour and explanation of particular psychological states can respond to the Wittgensteinians by asserting that they have gone too far. The imaginary interlocutor makes this point to Wittgenstein. On Wittgenstein's account of rules, nothing counts as a rule to guide behaviour. The notion of a rule and the explanation of those things which guide behaviour are now impossible according to the conceptions of rules and rule-following which have been presented. Wittgenstein replies:

> That is not what we ought to say, but rather: any interpretation still hangs in the air along with what it interprets, and cannot give it any support. *Interpretations by themselves do not determine meaning.* (PI§ 198) (Emphasis mine).

Shanker (1991 p. 76) asserts that we must distinguish between two senses of the word 'determines'. The causal sense of the word 'determines' and the grammatical necessity encompassed in the internal relation between a rule and its normatively defined criteria. What I commit myself to when I grasp

the internal relation between a rule and its criteria, and use this to form an intention to act in a particular way as a justification of my action, is the criteria which define whether my action is correct or incorrect according to the rule. I do not commit myself to an action on the basis of my interpretation. In the example of walking the dog this was illustrated by pointing out that I could completely misunderstand the sign. My interpretation is a justification for my action; it is not the reason I acted.

Shanker argues that we confuse the logico-grammatical connection between intention and action with a temporal relation. Thus we fail to distinguish between a rule of grammar and its application. It is the action which satisfies the intention; just as the criteria for a rule satisfy the rule. So, for example, if I intend to accord with the sign in the park, it will be my actions, not my interpretation of the sign, nor my intentions, which satisfy whether or not the normative prescriptions have been adhered to. The approach adopted by the cognitivists is to turn this view around completely. They suppose that my intentions which cause my actions: The antecedents conditions (My viewing a sign) produce a functional state (My intention to keep my dog controlled) to produce an action (Keeping the dog on the leash). But forming an intention to act in a particular way in no way encompasses the cause of that action. "... an agent's forming the intention to Φ no more brought about his Φing than his learning the rules of chess brought about his playing the game." (Shanker, 1991 p. 78). Further, the reason for forming the intention, in my example to obey the law and avoid a fine, cannot be said to cause my action. Reasons only justify an action, as demonstrated by the legal conflict in the example.

So, according to Wittgenstein, we must look to the context in which a rule is applied to determine what is in accord and what is in conflict with that rule. This context is discussed by Coulter (1982) in his attack on the cognitivists. Like Harré, Coulter is committed to the notion that cognition is a social/public event appropriately analysed within the social practices in which it arises. Coulter suggests that cognitive psychology fails to consider this social context and that: "...the de-reification of the field opens up the contested territory to sociocultural and ethnomethdological analysis."(p. 4).

Coulter maintains that 'Turing machine functionalists', like Fodor and Dennett, do not distinguish between behaviour which is causally determined by the state of a machine and those behaviours which humans engage in that are determined, partly defined, or at least interpreted, within

the environmental circumstances which surround that behaviour. Coulter seems to be getting to the point drawn from Wittgenstein about the normative nature of calculation. But he makes no reference to those Wittgensteinian arguments and therefore makes his point contingent on there being 'non-calculable contextual particulars'. Coulter (1982 p. 10) states:

> If, as seems to be the case, non-enumerable contextual particulars, enter into the (defeasible) constitution of some series of behavioural events as an 'action' of a specifiable sort (e.g. 'pronouncing the numbers "four fifteen"', contrasted with: 'telling someone the time', contrasted with, e.g., 'warning someone of their lateness for an appointment'), then the goal of developing such algorithms for 'actions' would appear to be misconceived. (There may well be 'conventions' of normative sorts, but these are not algorithmic).

Something more is needed than simply saying that some things cannot be computed. Context may be interpreted, processed and reacted to by a computer with some suitable sensory apparatus and sufficient programming. The point that needs to be made is that this processing of information is not 'calculation' in the same sense that we apply the term calculation to someone who derives the product of two numbers. It is not that a computer cannot cope with contextual particulars, it is simply that you and I cope with contextual particulars in ways which are to be understood differently from the processing of information in a machine.

The point needs to be made that if a computer were to be made to react appropriately to all contextual particulars then its functioning would no longer provide the basis for an analogy to psychological processes. Since it makes no sense to suppose that a computer operates in the same way that we do when performing tasks like calculation, because 'calculation' must be understood within the context in which it is used (Because of its normative nature). And in order for the computer to react to those contextual particulars we would necessarily require an understanding of the context in which it would react, either to interpret the response as correct or to design the correct response, then the analogy between the computer's functional states and functional descriptions of psychological states is empty. The performance of an algorithm, even if it accords with socially maintained normative prescriptions, provides no model of 'thinking'. The mechanism is a aid which facilitates thinking and does not replace thought, or provide a model of thought in itself. We gain an understanding of the

appropriateness of actions within a context, not from the causal determinants of that action. (Unless we require a causal account of action referring specifically to neurophysiology—which would eliminate those mental models posited by the functionalists).

Conclusions

Functional descriptions of mental states employed by the cognitivists adhere to an inappropriate account of rule-following which forces a commitment to causal descriptions of mental processes. Malcolm (1971), and others, suggest that this causal account of mental processes entails ontological commitments which are akin to a form of dualism, or the Cartesian conception of mind. Wittgenstein's private language argument is thought to be able to dismiss this line of argument by the cognitivists because it repudiates the Cartesian conception of mind. Rorty maintains, and his argument has been supported, that the 'no private language argument' (which without the supporting arguments concerning rules and rule-following) will not reveal what is wrong with a cognitivist's claim that it is useful to form an analogy between computer functioning and psychological functioning. No ontological commitment is necessary, and there is no *a priori* reason to suggest that there need be such a commitment. However, to avoid the charge levelled against them the cognitivists must maintain that they are producing models of the mind which are in some sense pedagogically useful. They must abandon any ontological claims in favour of promissory notes which offer the assurance that in the future, based on their models, neurophysiology will make the ontological claims which link their models to the functioning of the brain.

Coulter, Harré, Malcolm, Shanker and Kenny all maintain that there is something wrong with this faith in waiting for some connection to be established between the models of inner processes and the physicalist philosophy. In general, anti-cognitivists maintain that psychological processes are to be examined within an appropriate public context. It is from this context that psychological terms gain their meaning. Furthermore, they suggest that no ontology will link brain states to models of mental processes because it makes no sense to talk of a 'mental inner'. The alternative is to consider that psychological states occur as a result of our physiological

capacities but are to be understood as expressions of those physiological capacities within a public context.

It has been suggested that the anti-cognitivist arguments amount to no more than an alternative position, one which is agreed with, but which is insufficient to show what is misguided about the cognitivist's research programme. The necessary arguments are available in the Wittgensteinian literature, almost directly from Wittgenstein himself. Wittgenstein anticipated the problems that might occur with supposing that it is possible to attribute psychological concepts to machines but restricted his arguments to counter the claims made by Turing regarding a conception of the nature of calculation.

The question for the anti-cognitivists now becomes: what is wrong in principle with developing models of mental states based on the computer analogy? The answer taken from Wittgenstein is that it is nonsense to adopt an account of calculation that makes calculation a species of causal processes. Wittgenstein's account of rules and rule-following allows us to see why it is that causal account of psychological process, or the models of the mind, are inappropriate. Fodor and the others simply assert nonsense (What is meant by nonsense will be made clear) in the disguise of philosophy.

If cognitive science and cognitive psychology are truly asserting nonsense then what of their successes? Is the only avenue open to us that which the constructionists suggest? Perhaps the constructionists fare no better than their counterparts. In Chapter Four it is argued that constructionism mistakes the Wittgensteinian points and get us no further than the cognitivists with their proposed research programmes. Chapter Eight attempts to show that the traditional methodological assumptions and practices of cognitive psychologists are useful with reference to Thagard's (1989) account of scientific creativity. There is no contradiction here: the results of cognitive psychology may not be pedagogically useful but the practices they employed in obtaining the results may well be.

Chapter Three

The 'Third Realm'

The Private language Argument: An unbreakable code

Cryptology is the study of secret writing, especially for the purposes of decryptment—the 'breaking' or 'reading' of secret correspondence by a third party. The attempt to produce an unbreakable code is vital for the communication of secret correspondence between parties, especially in a time of war. An example of a code system which is of particular interest to this investigation is that of the Enigma machine cipher which was used by the Germans in World War Two. Turing's involvement in the development of machines to read the Enigma code is famous. The necessity to produce complex machines, created by the complexity of the Enigma code, is undoubtedly what propelled us into the computer age and eventually led to such things as cognitive science.

The 'private language argument' (PI §243-265) is directed against the idea that a person could follow a private rule, and in doing so could have a language which *in principle*, as one consequence, no-one else could understand. The aim of cryptologists is to produce a language which is indecipherable to those for whom it is not intended; to produce a language which no-one else, other than those to for whom it is intended, could possibly understand. There is some usefulness in exploring the private language argument, social constructionism, Frege's arguments and cognitive science using an example drawn from cryptology. It will be shown, that despite widespread misunderstanding, Wittgenstein was not against the notion of an individual following a code privately (he argued against the intelligibility of a 'private code'). The point of the private language argument is to expose the absurdity of the private language, that it

is not a language, that *in principle*, not even the speaker of the private language could understand the rules for the use of terms. Nevertheless, some social constructionists would deny the intelligibility of the idea of following a code privately—developed in isolation from society. In this belief, it will be argued, they are mistaken.

The private language argument has been interpreted in two rival ways. Kripke (1982) and Malcolm (1988, following Kripke 1982, pp. 154-191) argue that the argument identifies the impossibility of an individual establishing the meaning of sensation term without the aid of other people. Hacker (1986, 1990), and Baker and Hacker (1984), argue that what is absent in the case of the genuine private linguist is any means of establishing the stability of the referent of the sensation term, viz. the private language has no features of a genuine language at all. Pears (1988 p. 372) argues that there are two ways to stabilise the use of words in language: appeal to other people and calibration against physical objects. Depending on one's interpretation of the private language argument (Werhane, 1989, p. 134 recognises four versions of the 'community view of language' akin to Kripke's interpretation) one will give priority to one or other of these conditions, *pace* Wittgenstein who made no attempt to assess the relative importance of either (Pears 1988, p.372). Pears adds further that:

> ...the second deficiency would make the first one inevitable, because the only way to get into a position to seek confirmation from other people is to establish communication with them through the physical world. But the first deficiency would not make the second one inevitable, because it is possible to imagine an intelligent wolf-child exploiting physical objects to set up a language for his own use without the help provided by the typical human family. (1988 p. 362).

The problem is not the interpretation of Wittgenstein so much as the uptake of so-called Wittgensteinian arguments within psychology—one can argue independently that a community view of language is incoherent (Werhane 1989). Both the 'rival' interpretations find expression within psychology, particularly within the doctrine of social constructionism. The important point is the consequence that Pears addresses. If Wittgenstein's private language argument is thought to establish the necessity of consensual judgement then it rules out the possibility of an individual producing a language-game in the absence of a community. In the next chapter in will be demonstrated that such an interpretation distorts Wittgenstein's contribution to our understanding of the concept of

'insanity'. Since it will be argued that we must consider the creative and the insane as 'autonomous individuals' capable of developing a language-game without appeal to community standards of correctness, it is the second interpretation (Hacker's 1986, 1990 interpretation) of the 'private language argument' which must be followed. Frege's arguments against psychologism are reintroduced to illustrate that what is distorted within the claim that consensual agreement is a prerequisite for language is the internal relationship between a rule and its extension. It is the preservation of the internal relation, discussed in the previous chapter, which underlies Hacker's (1990) interpretation of the private language argument.

Hacker outlines the problem clearly:

> It is sometimes thought that the point of Wittgenstein's argument is to prove that a language is essentially the shared property of a multiplicity of speakers, or that a neonate Crusoe could not use a language since he couldn't (without extra insular aid) distinguish seeming to follow a rule from following a rule. This is mistaken. Far from suggesting that a language is always a social activity involving rules that only a social institution can provide, Wittgenstein had no objection to following a rule privately (in solitude), but only to following a 'private' rule, i.e. a rule which no one else *could in principle* understand or follow. (Emphasis in the original). (1986 pp. 252-253).

In Chapter Five a conception of creativity will be developed which relies on the acceptance of the idea that an individual can follow a private rule. From this position the argument is presented that the concept of insanity is ascribed to those who break the rules of society in which they reside. It needs to be established that an individual is not logically prevented from creating a 'language-game' which is unshared or even a totally new language despite their belonging to a society. Kripke's (1982) 'rule scepticism' relies on an argument which suggests that the novel application of a rule is precluded without appeal to others. Such concerns are dissolved when Wittgenstein's private language argument is presented according to Hacker's interpretation (Baker and Hacker, 1984a, pp. 88-97).

There are many forms of argument which might be encompassed by the title 'social constructionism'. It is not assumed that all forms of the doctrine will be accommodated within the criticism that will be presented. Only one particular idea is the subject of criticism, an idea that Harré (1992 pp. 154-155) claims is common to all versions:

> The one shared thesis is this: all psychological phenomena and the beings in which they are realized are produced discursively. *Since there could be no being which is both atomic and capable of the intentional use of symbols, the discursive thesis entails a sociality thesis.* All action meaningful as acts, that is, action which is capable of sustaining some psychological phenomenon such as remembering or deciding, is joint action. (Emphasis mine).

It is Wittgenstein who allegedly provides the support for the supposition: "...there could be no being which is both atomic and capable of the intentional use of symbols."(Harré 1992, pp. 154-155). Just what 'atomic' means will be made clear by discussing at length what Wittgenstein meant by 'private' in the private language argument. From the outset it is important to note that the intention of this criticism of social constructionism is for one purpose only, viz., it will be argued that a creative individual is an 'atomic' individual who is capable of the intentional use of symbols. Taken baldly the statement "...there could be no being which is both atomic and capable of the intentional use of symbols"(Harré 1992, pp. 154-155) is ambiguous since it does not reveal what it is that prevents the intentional use of symbols. An individual who is separated from society is 'atomic' in the sense that consensual judgements are no longer available as a resource to stabilise that individual's language use. And, an individual is 'atomic' if the physical world is no longer available in the same capacity. It is this latter interpretation which Harré intends. Harré (1989) recognises the importance of Wittgenstein's insight that the logical relations between meaning, language and understanding do not entail the requirement that language must be acquired within a social setting. Harré distinguishes between language being *publicly* acquired and being *socially* maintained:

> As Wittgenstein (1953) showed, language is such that it must be publicly acquired and the normativity of it uses socially sustained by collectively citable rules and conventions (p. 166).

That language must be only publicly acquired indicates Harré's commitment to Hacker's view that what is logically precluded in Wittgenstein's private language argument is the features of the physical world. A solitary language user can (logically) acquire the intentional use of symbols in the absence of a society—but the genuine private linguist cannot. If this interpretation is adhered to it limits the sociality thesis. Wittgenstein's private language argument cannot be used to assert that all

language is maintained socially because it leaves open the possibility of a language developed in isolation from other people or a language which is created without the influence of other people: a code followed privately vis-a-vis a 'private code'.

Harré's thesis regarding joint action defines the sociality thesis in a way which differs from those constructionists who would rule out the possibility of an individual using language in isolation. A language which is publicly acquired relies only on stable public exemplars which could be features of the physical world. Individual 'joint action' can mean that an individual applies language to his own actions but there must be something external to the action which stabilises usages. Thus Pears' suggestion that an individual can exploit contingently stable features of the material world features in Harré's version of Wittgenstein's importance within the social constructionist doctrine. Such possibilities as neonate Crusoes, or Wolf-children pose no conceptual problems within the version of social constructionism which Harré proposes.

Pears (1988 pp. 334-335) questions whether the case of an intelligent wolf-child has any bearing on the private language argument. Pears (1988) points out that Wittgenstein's attitude to such a case is enigmatic, perhaps because he thought such a case would be too marginal in relation to our normal acquisition of language[11]. However, Pears ventures the conditional that if it was Wittgenstein's view that a wolf-child could not develop a language it would be because Wittgenstein believed "...that nothing that it was logically possible for him to do would count as devising and using a language." (p. 335). In presenting the issue in this way Pears equivocates between the 'rival' interpretations of the private language argument. If one adopts Hacker's interpretation then the intelligent wolf-child poses no conceptual problem whatsoever. (Baker and Hacker, 1985, pp. 243-244). Only the interpretation that Wittgenstein regarded consensual agreement to be absent in the case of the private linguist avails itself to the implication that the wolf-child is logically precluded from obtaining a language.

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[11] Pears (1988 p. 334) remarks in relation to a wolf-child setting up his own language, "In *Philosophical Investigations* Wittgenstein certainly never says that he could do this." Baker and Hacker (1984 p. 41) point out that in Wittgenstein's notebooks he explicitly discusses that a Robinson Crusoe could use a language and we would be able to determine such(MS 124, pp. 213 and 211). The point is that such cases pose no conceptual problems whatsoever which presumably is the reason the case is not discussed in the final version. Pears recognises these points later at p. 373.

Indeed it is not wrong to assert the thesis that learning a language absolutely requires a community. When stated as an empirical thesis it stands in need only of some evidential counter-example for it to be challenged. Nothing of the sort will be provided here. The philosophical claim that language necessarily requires a community will be challenged only to the extent that it is not the conclusion to be drawn from the private language argument (see Werhane, 1989 for the arguments against the community view of language in philosophy). The purpose of this chapter is to expose the extent to which Wittgenstein's private language argument can be misinterpreted in theory within psychology. In particular, undoubtedly due to flourishing alternative interpretations of the private language argument, confusion has developed within psychology as to how Wittgenstein should be accommodated. When the case of the wolf-child is extended into theorising within psychology Pears' equivocation seems justified for it is the case that wolf-children do not develop anything which we can consider to be a language. It is the temptation to seek some justification for this *fact* within Wittgenstein's philosophy and extend the case to 'atomic' individuals generally that must be undermined in the following argument.

From Wittgenstein to the Sociality Thesis and the temptation to the 'Third realm'

Social constructionists take from Wittgenstein the view that the meaning of a mental state term is held independent of the private object it is sometimes thought to denote. A mental state term does not gain its meaning by reference to some inner mental object. This is one conclusion that can be drawn from Wittgenstein's private language argument. It follows from the acceptance of this conclusion that *it makes no sense* to locate the referents of mental state terms within the individual's 'mind' or some other 'entity' correlated with it. There is however a commitment attached with the acceptance of this conclusion to Wittgenstein's private language argument. The argument draws on the preceding hundred sections of the *Philosophical Investigations* concerning rules and rule following (discussed in Chapter Two):

> [The private language argument] does, however, build upon previous conceptual clarifications. Hence it is important to locate it correctly within the argumentative strategy of the book. The

> preceding hundred sections (§§143-242) are concerned with a variety of themes about following rules. (Hacker, 1986 p. 247).

While the present argument concedes that social constructionists have, broadly, accepted without error the idea that our psychological predicates do not attach themselves to some hidden mental entity, it is the consequences of the commitment they have to Wittgenstein's private language argument which is of concern. What sneaks along with the refutation of the Augustinian picture of language (and the acceptance of Wittgenstein private language argument) is the notion of 'nonsense', or at least 'unintelligibility'—that the private language is unintelligible or that a philosophical position which asserts a private language is nonsensical. Equivocation between the 'rival interpretations' of Wittgenstein's argument disguises this commitment since on either interpretation it will follow that psychological predicates do not acquire their meaning by reference to some inner state. Wittgenstein uses the notion of 'nonsense' in a technical way, developed from his conception of rule-following (Discussed in Chapters Four, Five and Six). The argument which follows concerns whether these commitments are adhered to; it is not intended to undermine the valuable contribution social constructionists have offered by introducing the importance of the conclusions that a psychological predicate does not refer to some hidden mental entity.

The Enigma Lesson

Enigma was a mechanical cipher system which scrambled an input into a senseless coded message. Deciphering Enigma messages required an equivalent machine that, *if* it was placed at the exact same starting position of the Enigma machine that encrypted the message, it would be able to covert the code back to plain text. Unlike a 'direct standard alphabet', which converts the same symbol for a text symbol every time, Enigma had 17,576 different initial starting positions which would make the enciphering different practically every time. In fact the Germans decided that this range of possibilities was too low and so added several features to the military machines which increased the number of initial settings considerably. Each successive pressing of a letter would be coded to a different letter. For example 'banana' might be encoded within a direct standard alphabet which moved the letters three places (Ceasar's code) to 'edqdqd' but under the

Enigma code the encoding might resemble 'fhizxc'. Standard statistical techniques which compared the frequency of the symbols coded to the frequency of letters used in the text language were impotent against such a complex code. The code could not be broken simply by intercepting the coded sequences.

An analogy may be drawn between the coding system which operated within the Enigma machine and that of the hidden operations supposed by some to operate behind human language. The Enigma code was broken by determining the operations of the internal workings of the machine. A German U-Boat surrendered to the allies the secret workings of the machine. The rotors inside which manipulated the input revealed the manipulations of the enciphering, but the difficulty was then how to determine the initial settings of the machine. The Enigma code was eventually easily read with the help of a computer system (Colossus) which ran through the different combinations which comprised the possible starting positions of the Enigma machine. The coded transmissions of the operator settings, which informed the receiver of the code how to configure their machine, were broken by the polish mathematician Marian Rajewski and a similar technique was used by Turing necessitated by developments in the sophistication of the code. The endeavours of cognitive science can be likened to the struggle of interpreting and understanding the 'secret code' which we all unknowingly possess. The suggestion is that what precedes our speech and actions is really just a complicated code to be broken like Enigma. Leiber (1991) writes of the Enigma lesson:

> From the masses of these patterns one could determine what this architecture and system were, as a kind of black-box exercise. But this exercise was only possible because of the much more complex, dense, and irremovable pattern of redundancies in natural language, in the plain text German that was enciphered and deciphered by the Enigma Machine. If we analyse the formal patterns of redundancies in a natural language, we may hope to discover much, at a purely formal level, about the linguistic architecture of the human mind/brain that enciphers and deciphers such richly textured transmissions. (p. 131).

Leiber is wrong to suppose that the intercepted messages provided a key to the structure of the internal workings of the machine. The Polish mathematicians who worked on and eventually broke the Enigma code knew of the internal mechanisms of the Enigma machine from commercial models of the machine and later captured machines

themselves. The Germans anticipated that their machines would be captured but considered this irrelevant; to decode a message one still required the daily keys for the machine's operation. Leiber misleads us by proposing the conclusion, based on the historical analogy, that the task of breaking the 'human-enigma-code' is purely a 'black-box' affair. Leiber (1991) further misleads us with:

> If Turing could determine the functional innards of the Enigma Machine through the analysis of the patterns in its transmissions (speeded by an electronic computing system), why should we not expect a much richer enlightenment in the determination of a most basic portion of our functional innards, our basic encipherment, our day and message settings?(p. 131).

While the philosophical consequences of Leiber's proposal are unchanged it is worth pointing out that Turing did not determine the functional innards of the Enigma machine by the interception of transmissions. It was in fact Marian Rajewski who first broke the code (Kozaczuk 1984). Turing's contribution to the task was the creation of a sophisticated machine to run through all the possible settings of the Enigma Machine. The Enigma code was not broken by mathematics alone. The task was facilitated by intelligence and espionage. The idea that the functional architecture of the Enigma machine was determined (By Turing!) by intercepted messages is historically inaccurate and philosophically misleading.

Nevertheless, Leiber's philosophical suggestion remains: we are (metaphorically) just complicated Enigma Machines. The Enigma machine's code was broken, similarly our inner mental code will also be understood. Neurophysiologists will tell us the internal workings and logicians and computer scientists will tell us the code sequence. A bigger and better computer system, a 'grand Colossus', will break that code. But perhaps there is no code or hidden mental language? What really are the 'redundancies' in our natural languages? The idea that the terms of our natural languages can be described at a purely formal level, either by a computer programme or a formal logic, is the mistaken view of language espoused by Frege which Wittgenstein rejected in his later work. Wittgenstein's private language argument will help persuade us that this picture of searching for a mental inner, a code that precedes our language and action, is based on some fundamental misconceptions about language, meaning, and *understanding* (Hacker 1986).

In Chapter One the independence of logic was considered and Frege's arguments dealt with in some detail, the notion of psychologism was presented and the implications for considering logic to be foundational were discussed. According to Sober (1978), Frege's argument runs something like the following:

> If communication is to be possible the speakers of a language must associate the same, or nearly the same, meanings with terms used in language.
>
> Mental images are logically private, I cannot know what image you associate with the number 2 and you cannot know what image I associate with the number 2 since we are logically separate.
>
> Mental images that people associate with terms vary enormously from person to person.
>
> Images, or mental representations, may vary but meanings cannot.
>
> Meanings are not mental images.

For purposes of illustration let us assume that the task of psychology is analogous to that of breaking the Enigma code as Leiber would have it. Suppose that there is some mental operations which are equivalent to the scrambling of the input presented to the Enigma machine. Suppose that you and I are just complicated Enigma machines that process information in an extremely complex way which cannot be understood purely on the basis of the interception of information—the behaviour of the 'machine'. An equivalent argument to Frege's might be presented:

> A code which is scrambled according to possibilities will not be understood without the person receiving the transmission having the correct initial settings of the machine. Understanding requires the sender and the receiver to have the same settings on the Enigma machine.
>
> But I cannot know your method of encoding and you cannot know mine since we are in separate locations (Say I am in France and you are in Germany).
>
> Each person enciphers things differently. There is no way I can know your machine's initial starting position and you cannot know mine.
>
> Therefore, because we do understand each other (In normal circumstances), it must be the case that the meaning of our

> language is not corrupted by any inner mental code. Meaning is completely unrelated to all the manipulations of our mental apparatus.

If it is possible to cash out the analogy between code breaking and cognitive science then Frege's argument might deal quite a convincing blow against the cognitivists—it sets up the view that the objects of inquiry are those Platonistic public entities, *pace* the cognitivists who must include the actual state of the machine in their functionalist descriptions. It has already been conceded that Frege's position is "...supported by a number of bad arguments."(Dummett, 1981 p. 32). Nevertheless, the confusion promulgated by the division between the object of inquiry for logic and psychology was identified as arising from the initial division itself. Functionalist theories incorporate this initial division, rather than addressing it as Wittgenstein does, conceding to the Cartesian ontology as Frege did and thus expose themselves to Frege's argument (see Chapter One pp. 16-24, and 27-34).

The 'no private language argument' presented in Chapter Two was rejected as insufficient to reveal what is wrong with cognitivist accounts of the nature and meaning of psychological predicates. It was argued that the 'no private language' argument (as presented by Malcolm 1971) relies on, in Malcolm's case, an unexplicated account of rules and rule-following which reveals the contrast between the rules being used causally and rules being used normatively. Again, the interpretation of Wittgenstein's private language argument which suggests that what is precluded is the idea of an individual developing a rule in isolation, reveals that psychological predicates do not refer to some hidden mental inner, but it does not expose, in exactly the same way that Frege's argument does not expose, what is unintelligible with the cognitivist thesis (or in Frege's case the error of psychologism). Frege, according to Wittgenstein, severed the internal relationship between language, meaning, and understanding. Without attending to Wittgenstein's restoration of the relationships between language, meaning and understanding, one distorts Wittgenstein's philosophical insight and applies it in a way which tempts confusion: in Frege's case the adoption of Platonism. One might, as is indicated by those who would reject the notion of an individual following a rule privately, be tempted to accept the argument that there is no inner mental referent for psychological predicates so it must be that the referents of psychological terms exists independently of the individual. Since what is thought to be

conspicuous in the private language argument is the absence of appeal to other people to stabilise language use, it is mistakenly believed that Wittgenstein endorsed the view that consensual judgement is necessary for the use of language. But, on this mistaken view, consensual judgement operates in the same way that Frege's Platonism operates: it places a 'third thing' between a rule and its extension and severs the internal relation—It places the correctness of the rule in the hands of the community.

Frege wanted to ensure that logic was independent of all psychological considerations. Frege's argument is unconvincing for the several reasons examined in Chapter One but its importance historically cannot be overlooked. Baker and Hacker comment:

> Frege's onslaught upon psychologicians with respect to objects of judgement is a model of an effective polemic, but not a paradigm of penetrating philosophical criticism. (1984 p. 49).

Frege held that the content of judgement is not the same as the mental act of judging and thinking (The 'common expedient'). This can be likened to the coded message which has a meaning independent of the encryption. To separate the subject matter of logic, which was the meaning or sense of a proposition, from that of psychology, Frege developed an account of 'ideas' as subjective entities—Thus characterising the objects of psychological inquiry within the mistaken confines of the Cartesian doctrine.

On Frege's view, three features of ideas are proposed. Firstly, ideas are existent-dependent to a bearer. An idea only exists because someone has an idea. An idea, unlike a meaning, depends upon an individual possessing that idea. Secondly, ideas are privately owned and unshareable. Frege held that we all possess our ideas and that my idea of something, say the colour red, is completely different from someone else's conception of the colour red."I can no more have your idea than you can have my pain." (Baker and Hacker, 1984 p. 46). I cannot communicate my idea of red to you since I could never know that we were discussing the same thing. Public things, such as smiles and sneezes, are indications of ideas to an external observer. The private nature of ideas does not exclude the possibility of the qualitative identity of ideas. Nevertheless, and thirdly, ideas are epistemically private. Only the bearer of an idea knows its nature and characteristics. Therefore it is possible, according to Frege, to know what state a person is in by examining the public features which are related to a

particular state, but the *nature* of 'ideas' is wholly incommunicable. (Baker and Hacker, 1984 p. 49).

Imagine if the allies in World War Two had to comprehend a totally new language instead of a German language code. We might concede that the functioning of the actual apparatus is irrelevant to the meaning of the message. However, the possibility of breaking a code assumes that broken code will be intelligible. What made the broken Enigma code intelligible was the fact that all the messages were scrambled German. By regarding the meaning of the message to be some abstract entity ignores the logical requirement that its intelligibility (the ability to grasp that meaning) occurs against a presupposed practice: In the Enigma example, the German language. A pre-arranged codeword for some operation would still be unintelligible. The codeword 'picador' is perfectly intelligible as meaning 'a mounted bullfighter with a lance', but when it is given some new meaning, say of some secret military operation, its decryption would still leave one guessing its acquired meaning. If the Germans had used some completely new language the allies would never have understood their intercepted messages at all.

Social Constructionists, when they make claims that an individual's grasp of language is *determined* by a society (Armon-Jones, 1986 p. 33) are in an analogous position to that of the allies in assuming that behind their interpretation of social events there is a social reality in which everything deciphered will make sense: without the assumption that the deciphered text was standard German the point of the decryptment would be lost. Deciphered text was compared with the criterion of the German language. While constructionists generally agree that the operations of the 'Human Enigma machine' are irrelevant to the meaning of psychological predicates some premiss their argument against the background that meaning of terms are intelligible only within a social context: language use makes sense only against the criterion of appeal to consensual judgement. But an individual's act of understanding is not, on Wittgenstein's view, determined by anything (see Chapter Two pp. 51-61).

By adopting the view that Wittgenstein's private language argument precludes language use in the absence of consensual agreement the temptation remains to create a distinction between understanding as a mental process and understanding being manifest in an individual's accordance with consensual agreement. In Chapter One it was argued that it

was just such a manoeuvre that Wittgenstein sought to undermine. The symptom of such a confusion was, in Frege's case, the adoption of Platonism. The symptom here is the belief that consensual agreement prescribes what is and is not correct language use: that society determines the meaning of psychological predicates, that language use necessarily involves appeal to others, and that and individual cannot, logically, acquire a language in the absence of a community.

Hacker's criticism of the 'incommunicability argument'.

The following is an attempt to defend the importance of an argument Harré (1988) presents against a criticism which Hacker (1990) produces while recognising that the argument has the potential to mislead one to positing the view rejected above. It will be labelled the 'incommunicability argument' for convenience since it relies on the implication that the private language argument is incommunicable. The purpose of the following argument is to offer an account of how one might be tempted to the position that Wittgenstein ruled out the possibility of a language developed in isolation but, perhaps more importantly, to reveal just how far we can take the implications of the private language argument within psychology. It should be recognised that what is important for philosophers when interpreting Wittgenstein's arguments will be different from what is of importance for theorists within psychology.

Harré (1988), in opposing the cognitivist doctrine, states:

> A first principle of *Wittgenstein's* philosophy of psychology is that we must hang on to the fact that we can and do converse easily with one another about our private bodily feelings. These feelings are logically inexperiencible by anyone else since among the criteria for their individuation is the requirement that they be the feelings that I feel. I can no more sneeze your sneezes than I can feel your pains. So, in the well known *Wittgensteinian* way of putting such matters, the statement 'I cannot feel your feelings nor you feel mine' is a grammatical and not an empirical observation. (p. 106). (Italics mine).

Harré continues:

> If we think that the meaning of a word is determined by and only by that which it denotes, and sensation words denote logically private feelings, the only person who could know what he or she

> meant by his or her use of the word 'tickle' would be the current speaker. (1988 p. 106).

Harré concludes:

> It follows that a public conversation about such feelings is impossible since literally I could never know what your words meant, nor you what I meant by mine....There would be no way in which I could have acquired them in some stable and rule provoking way; 'rule provoking' since failure on my part to use words according to local conventions calls forth the disciplinary citation of a rule by my instructors. (1988 p. 106).

Hacker (1990) is critical of the this way of presenting the private language argument. Hacker's concern is not that the above argument is the wrong interpretation of Wittgenstein. Rather, Hacker maintains that the argument is redundant and misleading. Any inclusion of a premiss regarding the incommunicability of the private language is on Hacker's interpretation a redundant exercise:

> ...Wittgenstein spends hardly any time on the issue of incommunicability, taking that to be perspicuous, and focuses primarily on the question of the conceivability of a radically private language. (p. 96).

Notwithstanding this, Hacker concedes that it is correct to argue:

> A radically private language is not a means of interpersonal communication.
> The language I speak is a means of interpersonal communication.
> Therefore, the language I speak is not a radically private one. (p. 96).

The reason why Hacker maintains that the incommunicability of the private language argument is perspicuous is explained with reference to the earlier concerns regarding rules and rule-following:

> The moot question for a private language is not so much whether others can understand, but whether one understands oneself—indeed whether there is anything to understand at all....If it is logically impossible for anyone else to understand, must it not also be logically impossible for oneself to understand? For then does it not follow that there is actually nothing to understand? (p. 21).

Recall that in Chapter Two it was explained that understanding is internally related to the ability to follow a rule. One demonstrates one's understanding of a rule by applying that rule according to a set of normative criteria. If there are no normative criteria for the application of a rule then it follows, in Wittgenstein's account, that there can be no genuine understanding. The point of the private language argument, according to Hacker, is to expose that there are no genuine rules to follow in the case of the genuine private linguist. It is then consistent with Wittgenstein's strategy to take as perspicuous that neither the private linguist nor anyone else could understand that 'language' since it would not be a language at all. Thus for Hacker the issue of the incommunicability of the private language is irrelevant.

Hacker (1990) does not suggest that stating the logical implications of the private language argument is incorrect. However, Hacker claims that representing the private language argument as being concerning with communicability distorts Wittgenstein's philosophical method. Introducing the implication that the radically private language is incommunicable is 'unhelpful' according to Hacker, since it does not reveal the pressures to attend to a philosophical perspective which will commit the errors inherent within view which suggest that private experience is the foundation of our epistemic claims. Harré discharges this responsibility in two ways. First, his claim "There would be no way way in which I could have acquired them in some stable and rule provoking way" settles any concern that what is primary to the private language argument is that it identifies that the genuine private linguist has no rules to follow. Second, Harré presents the argument to attack the cognitivist claims about rule-following within the computer analogy to psychological states.

In what way might Harré's interpretation of the private language argument be misleading? The problem according to Hacker enters when one is forced to consider the first premiss: "...the statement 'I cannot feel your feelings nor you mine' is a grammatical and not an empirical observation." (p.106). This premiss supports the implication that "I could never know what your words meant, nor you what I meant by mine...". Again, this conclusion invokes the implication of the private language argument, viz., that it is not communicable and is reliant on the acceptance that, "There would be no way in which I could have acquired them [words and meanings] in some stable and rule provoking way." (p.106).

Hacker questions whether the premiss "I cannot feel your pains nor you mine" contributes to Wittgenstein's argument at all:

> 'Another person cannot have my pains': once the mistaken claim that two people cannot have the same pain is unmasked, *the primary interest in this proposition lapses.* Nevertheless, one may still wonder whether some grammatical truth does not lurk behind it. (p. 84). (Emphasis mine).

Harré (1988) clearly is making the claim as a grammatical and not an empirical or metaphysical proposition. Hacker regards this as making 'scant sense' (p. 84). Importantly, the truths which Hacker concedes can be 'squeezed out' of this proposition are all that Harré requires for the defence of his position. Hacker concedes that four truths can be drawn from the premiss.

Firstly, the premiss, 'I cannot feel your pains and you mine', when treated as a grammatical proposition, can be used to indicate the asymmetry between being aware of one's own pains and being aware of another's pains. When I claim, say to a doctor, 'I am aware of a dull throbbing pain in my head' I make a claim which means, in Wittgenstein's account, roughly the same as 'I have a headache'. The doctor's awareness of my pain does not mean that he has a headache. Hacker (1990 p. 86) remarks that the temptation to confuse a grammatical truth with a metaphysical thesis will lead one easily to the misguided position of asserting, "I can't be aware of another person's pains in the same way as I am aware of my own". (p. 86). (see below). But, as will be revealed, it makes no sense to suppose that I have any direct knowledge or awareness of my own pains—I am in pain, and that is all. It does make sense to say that I do not perceive my own pain but perceive his: I learn that someone else is in pain but I do not learn that I am in pain. Harré (1989) exploits this fully:

> ...to say "I am in pain" is not to make an empirical statement about myself on the basis of experiential evidence. The statement, as uttered, is part of the expression of pain. It replaces or supplements groaning, writhing, rubbing the spot where I was struck and so on. *It is an avowal not an assertion.* (p. 178) (emphasis mine).

Secondly, and similarly, it is also true that the premiss, 'I cannot feel your pains nor you mine' will lead to truth that my pain is manifest in my behaviour and not anyone else's. If I groan, writhe, and rub a spot struck then it is my pain that is being displayed. Another person's pain-behaviour

does not indicate the pain I have. Thirdly, the acceptance of the claim allows one to state without the implication that an empirical observation is necessary that there is no such thing as feeling the pain in another person's body. Finally, and equally related to all the above, the pain I have does not belong to me. 'My pain' is 'The pain I have'. One can exploit the grammatical truth that I cannot have another's pains to reveal the senselessness of the metaphysical claim that models such things as pains on physical objects. Physical objects can be shared, discarded, sold, transferred to another, and so on. But another cannot have my pain; the pain I have cannot be discarded, sold, or transferred to another, so unlike physical objects the pains I have cannot belong to me.

Harré's motivation for presenting the private language argument in this way is to provide an alternative to the temptation of positing a metaphysical thesis about the nature and meaning of psychological predicates. Notwithstanding this, Hacker (1990) still supposes that the argument, as presented, runs perilously close to committing the error that the private language argument seeks to expose. Again, the reason Hacker gives is that the introduction of a discussion of the incommunicability of the genuine private language does not expose what it is that is fundamentally flawed with the private language. Hacker explains:

> ...Wittgenstein's concern in this strand in the web of arguments is not whether one person alone could or could not talk of his experiences in an unshared language, but whether all of us, in our normal social setting, can be conceived to be following rules constituted by mere association of a word and a mental object or by private ostensive definitions. And private ostensive definitions are not ostensive definitions which other people do not happen to know about, but putative definitions (rules) which cannot be communicated to other people. It is such rules which were presupposed as the foundations of our common public languages by the mainstream of philosophy. *And it is by showing that there can be no such rules,* that representational idealism (and contemporary 'cognitive representationalism'), classical British idealism, phenomenalism, and solipsism can be shown to be philosophical chimeras. (p. 19) (Emphasis mine).

According to Hacker (1990) if one is to expose the error of another philosophical position using the private language argument one must make perspicuous what precludes the private linguist from following a rule. Nevertheless, Hacker (1990) must submit that the acceptance of the implications of the argument contribute to what is later described as 'the

positive function' of Wittgensteinian philosophy (Chapter Eight pp. 235-245). Harré (1988) is, by Hacker's admission, not wrong in presenting the argument the way he does. The motivation for presenting the private language argument in this way must be in recognition of its disabling effects on philosophical alternatives which postulate a view that private experiences form the basis of our understanding of psychological predicates. But the premiss 'I cannot feel your pains nor you mine' even stated as a grammatical truth does not reveal this. While Harré makes no error in presenting the argument in the way does, he tempts confusion concerning the structure of the private language argument. Others who mistakenly conclude that the private language argument logically precludes an individual following a rule, learning a language in isolation from a society, or developing a language followed privately, stray from the intention of the private language argument. As Hacker points out: "It is but a short step from grammatical platitudes to metaphysical theses, and from there to perdition." (p. 22). The following is one way in which such steps might be taken, when one strays from the grammatical truth and its implications addressed by Harré, into the 'minefield of metaphysics'.

Incommunicabilty and the temptation to metaphysics.

It needs to be made clear what Wittgenstein meant by the notion of 'private'. There are two dimensions which Wittgenstein explores in order to criticise: epistemic privacy and privacy of ownership. Hacker (1986 p. 221) makes clear the distinction between these two forms of privacy: "something is epistemically private for a person if only he can know it; it is private in the second sense if, in principle, only he can have it."

Suppose a German general decides to scramble some information using an Enigma machine. The encrypted information is not intended to be sent by radio transmission to anyone else. The encryption is of some plans for the movement of troops. The information is so sensitive that the general does not want the information to be read by anyone other than himself—he has a poor memory so must write down his thoughts. The information is for the general's private use. The general selects a key, a setting of the machine, and encodes his plans. The original plans are destroyed so that all that remains is a scrambled garble of typed script, and the mental note of the key settings known only to the general. Now we have the two senses of privacy.

Firstly, only the general can know the meaning of the scrambled plans—not because he remembers the original documentation but because only he can decode the message (Epistemic privacy). Secondly, *ex hypothesi*, only the general possesses the key to decode the message (Privacy of ownership).

When our understanding of privacy so far conceived is extended to cover psychological states the problems are uncovered. Hacker (1990 p. 94) states:

> It is important to note from the outset that both these forms of privacy are bogus...*In so far as it is true that sensations are private, it does not follow that you cannot have the same pain as I have.* Nor does it follow that you cannot know whether I am really in pain, what my pain is like, or whether I see red when I look at a ripe tomato.

It is wrong to rule out the possibility of a shared language on the basis of these forms of privacy. When Frege insists that "I can no more have your ideas than you can have my pain" he makes a metaphysical claim about the impossibility of sharing an inner states. But Frege makes the same mistake as the imaginary general makes in supposing his encrypted code is 'private'—the allies could in principle break the code and decipher his messages. It simply does not follow from either epistemic privacy or privacy of ownership that communication is logically impossible.

Harré is correct in asserting that Wittgenstein would cast statements regarding the privacy of mental states into the realm of the grammatical. Wittgenstein remarks at PI §248 'The proposition "Sensations are private" is comparable to: "One plays patience by oneself"'. It surely is a grammatical regularity.

Harré's grammatical recommendation does not provide the basis for the claim that "I could never know what you meant by your words, nor you what I meant by mine"(1988 p. 106). The statement 'I cannot have another's pain' is not a statement about the limitations of my abilities but a grammatical rule which excludes certain statements from our language. The acceptance of such a statement, on its own, does not produce a barrier for knowledge of another's subjective states. It does not follow from the grammatical recommendation that the statement "I can have your pains" is senseless that knowledge of another person's subjective states is impossible.

Wittgenstein draws out the difference between an empirical proposition and an *a priori* proposition (A grammatical rule). The negation of an

empirical proposition is a possible state of affairs but the negation of a grammatical proposition is nonsense. If Harré is making a metaphysical claim then what he says makes sense and so does the opposite. For instance, It is true that I cannot feel your pains nor you mine. Conversely, it is not the case that I cannot feel your pains nor you mine (i.e I can feel your pains). To make the metaphysical claim the opposite assertion must make sense. To make the claim that 'I cannot have your pains nor you mine' it must be the case that it makes sense to suppose that 'I can have your pains and you can have mine'. If this later claim makes no sense then the former claim collapses into a grammatical recommendation because the metaphysician cannot say what is metaphysically prevented from occurring.

The statement 'The enigma code is unbreakable' is radically different from '2+2=4'. The negation of the statement 'the Enigma code is unbreakable' is 'the enigma code can be broken', which makes sense. Whereas the negation of 2+2=4 is ~(2+2=4), which is senseless. Therefore to make the metaphysical claim 'I cannot have your pains nor you mine' the metaphysician must accept that it makes sense to suppose that two people can have the *same* pain. But Harré insists that his statement is a grammatical regularity so he must deny that two people can metaphysically have the same pain and accept that the statement 'I can feel your pains' is senseless.

If it is to be denied that two people can (metaphysically) have the same pain then the statement, "I cannot feel your feeling nor you mine' becomes a grammatical recommendation. Harré is quite clear that he is making the claim as a grammatical recommendation. But the problem then becomes just how to avoid denying that two people who have an injection in the left elbow have the same pain. The statement 'I have the same pain as him', if it is to be a grammatical recommendation, must be as senseless as the claim ~(2+2=4). Harré *must now provide some criterion* which justifies us in saying that two people with pain caused by the same event (not necessarily the same event although such a case is imaginable), who report the same phenomenal characteristics, of the same intensity and in same place do not have *same* pain. We often do say, and it is not obviously nonsense, that we have the same pain but this is ruled out by Harré's recommendation: to be a statement of grammar the negation of the claim 'I cannot have the same pains as you' must be senseless.

Wittgenstein suggests that is misleading to suppose that 'I feel *my* pain'. It misleads us into believing that it makes sense to distinguish between pains on the basis of ownership, i.e. my pain is the pain that belongs to me. However I can own or possess an individual physical object but I cannot possess *my own* pain. Wittgenstein asks what justifies the metaphysical claim that I feel my pain. Suppose that 'I feel my pain' is a metaphysical assumption. Can we imagine the opposite? Could we be in pain and not know that we are? It makes sense to suppose that one knows oneself to be in pain only if one can imagine the opposite but it makes no sense to suppose that one can feel a pain and not know about it. Therefore the difference between feeling a pain and knowing that one feels a pain is a distinction without a difference and consequently not a criterion for the individuation of pain. Hacker (1990) writes: "Someone else can have the same pain, i.e a pain with just those characteristics. What he cannot have is the pain that belongs to me, but then neither can I!" (p. 83).

If you have a pain in your left elbow and I have a pain in my left elbow, caused by an injection for instance, someone might present the idea that we have the same pain but not numerically identical pains since my pain is in my body and your pain is in your body. Like the numerically distinct Enigma machines, the pains in our elbows, it might be argued, are numerically distinct pains. But like the similarity of the Enigma machines it makes sense to suppose that we can communicate about this experience. The problem with the assertion "you cannot have an identical pain to me" is with the concept 'identical':

> I have seen a person in a discussion on this subject strike himself on the breast and say: "But surely another person can't have THIS pain!"—The answer to this is that one does not define a criterion of identity by emphatic stressing of the word "this". Rather, what the emphasis does is to suggest the case in which we are conversant with such a criterion of identity, but have to be reminded of it. (PI §253).

It makes sense to distinguish between two numerically distinct Enigma machines because they are in different places, built of different materials, have different serial numbers and so on. Despite this, for the purposes of communication the Enigma machines must be the *same* in construction and daily key settings: nothing about the physical uniqueness of an Enigma machine prevents its use in communication. We distinguish pain according to a different set of criteria: intensity, the place in occurs, and

phenomenal characteristics. These criteria do not lend themselves to the application of concepts like 'identity' in the way that physical object do. Emphasis of the word 'this' does not tell us what individuates pain but sends us in a mythological search for some inner criterion in which pains are individuated by belonging to the individual.

The problem is with the temptation to separate inner experiences from experiences of the public world. Wittgenstein asks us to consider what it is that makes us form a criterion of identity for physical objects and then suggests that this identity does not provide the basis for the individuation of subjective states:

> In so far as it makes *sense* to say that my pain is the same as his, it is also possible for us both to have the same pain. (And it would also be imaginable for two people to feel pain in the same—not just the corresponding—place. That might be the case with Siamese twin for instance.) (PI§ 253).

It is but a short step from, 'I cannot have the same pains as you' to a thesis that implies that I own or possess my experiences. Two people can possess two different Enigma machines. Two people can jointly possess one Enigma machine. But two Enigma machines which are used for the purposes of communication *are the same* both in construction and in their daily settings; but they are two, numerically distinct, Enigma machines—each individually possessed. We can, in the case of physical objects, differentiate the items picked out by reference to spatial location, or by reference to ownership. Possession of an Enigma machine does distinguish its uniqueness. The similarity of two Enigma machines, for the purposes of communication is not undermined by the fact that there are two numerically distinct Enigma machines. But does the fact that we distinguish between the uniqueness of physical objects according to their physical location extend to the case of 'pains'? Surely A's pain is *in* his distinct body, B's pain is *in* his distinct body (Hacker 1990 p. 49), and since they communicate meaningfully about 'pain' it must be that pains are like the 'Enigma machine' in the sense that they are numerically distinct but qualitatively the same for the purposes of communication.

Hacker (1990) explains that two different language-games are being crossed when one compares the language of physical objects with that of 'pains'. Hacker (1990 p. 49) gives the example:"The expression 'a pain in the leg' has a quite different grammar from 'a pin in the leg' even though both

determine locations." The pain I experience is not 'in' my leg in the same sense that a pin is in my leg. A pin my be removed and transferred to another location but when the pain is removed, by some anaesthetic, it does no go elsewhere despite it no longer being *in* my leg. If I have toothache upon biting an apple the pain is in my tooth and my tooth is in the apple but the pain is not in the apple but the filling in my tooth is both in my tooth and, when biting into the apple, the filling is in the apple. Again, the pin that is in my leg can be perceived but the pain in my leg cannot. Even if the pin were swallowed it would be in my stomach in a different sense than the pain I have in my stomach. One might operate and find the pin but one will not find the pain. Similarly, Hacker offers the example that, pains, unlike physical objects, occupy a location in a different sense than physical objects since physical objects can be smaller or larger than the place they occupy—in the latter case the object is, at best, half in, and half out, of its container (Hacker 1990. p. 49). But the pain in my finger cannot be said to be smaller or larger than my finger. Hacker offers the example with the intention of demonstrating that there are further qualities of physical objects which do not lend themselves to experiences such as pains. Perhaps such an example does not elaborate on the point above since it depends what one takes the pain to be the 'container'. If, in reply to a doctor's inquiry, I stated that I felt pain in my finger which extended to my hand then it could be said that the pain I have is larger (more extensive) than just my finger; if the pain was in my middle knuckle then the pain is smaller than my finger. This does not undermine the general point that the pain I have is not in my leg in the same sense that a pin is in my leg. And indeed "...we should be suspicious of the claim that since A's pain is in his foot and B's pain is in his foot, therefore their pains are in different places" (Hacker, 1990, p. 50). Unlike the Enigma machines, the distinction between qualitative and numerically distinct objects used to premiss an argument about what is communicated is not applicable to pains if that distinction is based on the metaphysical presupposition that each person's pains are differentiated by spatial location.

The ownership of pain is not a property of pain and also not a criterion for its individuation. It makes no sense to suppose that what makes my pain different from your pain is the fact that I own my pain. I cannot convince you that the brass in my set of keys is different from the brass in your keys simply by asserting that my brass keys are my keys. Similarly it make no sense to suppose that my experiences belong to me, for belonging, as in

ownership, is not applicable to private states. I am in pain and that is all. The pains that I experience cannot be given away, discarded, or sold.

Hacker concedes that there is one situation in which there is a thin analogue between the numerical identification of objects and that of experiences. When a doctor performs the procedure known as triage in a emergency room he or she must identify the number and extent of injuries of each patient. If a patient has multiple injuries then it is correct to say that the patient has two or more pains: for example, one as a result of a broken leg and one as a result of a lacerated hand. "We may grant this; for in so far as we count pains, difference of location in the subjects body implies *another* pain" (1990 p. 53). Presumably the same would apply for injuries with distinguishable causes: a protruding broken leg and the resultant laceration would be considered two different injuries requiring different attention. Nevertheless, the point does not extend to the number of people in the emergency room. It may be true that there are five people in the room with different injuries, different intensity of pains, different causes, locations and seriousness but there are not five, or more, pains in the room. Since the pains are not *in* the room at all. There are five people in the emergency room, in pain. Pains are countable but countability is restricted to persons. (Hacker 1990, p. 53). Pains cannot be distinguished by virtue of the fact that they can be counted.

There might be a context in which it does make sense to suppose that someone else's qualitative subjective experiences are the same as my own. Such a context surrounds our use of phrases such as "he has the same build", "she has the same colour hair", or "she has her mother's eyes"(Hacker 1990). The context for the application of sameness is that the features picked out are identifiable and their connection apparent (Perhaps a causal connection for the identity).

The 'fact' that our use of the word 'pain' does not typically have a criterion for the connection between pains of different people does not preclude the possibility that their might be circumstances in which a connection might occur. Imagine that a friend of yours is bitten by a poisonous snake. The venom is slow acting in his circulatory system and causing him considerable pain as the venom takes hold. The doctors do everything they can to support your friend but decide that he is weakening, a stronger person would live but your friend will die without a blood transfusion. You find it hard to imagine the suffering and the pain he experiences, but

the expressions of agony tell you he is indeed in pain. Fortunately you are the same blood type as your friend. The doctors, at your request, link you together so that your blood systems are intertwined by a machine. With the venom diluted between two people survival of both is ensured. But as the venom take hold within your blood system you exclaim, "now I have his pain!" (i.e the same pain). The context for the criterion of similarity is established. You do not assert nonsense when you make your exclamation. You have the same intensity pain, in the same place (Not in your friend's body: but as argued above pains cannot be distinguished according to their spatial location within an individual's body—PI§253), and report the same phenomenal characteristics. The causal connection between your pains and your friends pains is established. You cannot sensibly say that the pains are different because they are your pains, you own them, they belong to you or because they are in a different spatial location—in this situation is is not nonsense to say that you have the same pain.

We *can* say that we have the same pain. If two people both receive an injection in the elbow we can apply the concept of 'sameness'. Two people have pain in the same place, of the same intensity, and report the same phenomenal characteristics—they have the *same* pain. Hacker (1990 p. 51) insists

> Consequently, it is wrong to say that two people cannot (metaphysically!) have a pain in the same place, and mistakenly infer that two people cannot have the same pain *because* their pains must be in different places.

There is still the temptation according to Hacker is to produce an artifactual distinction between qualitative identity of pains and numerical identity of pains. The temptation arises from the inclusion of the premiss regarded the incommunicability of the private language argument. Recall: "I could never know what your words meant nor you mine". If the negation of the first premiss is acceptable on the presupposition of some metaphysical distinction between qualitative and numerically distinct pains, (i.e I can have his pains) then nothing prevents the incommunicability and the argument is unconvincing. It is only by accepting some criterion for the separation of individual pains that one can premiss the 'incommunicability argument'. Without some distinction between 'pains' which are mine and that feature of pains that can be shared the claim "I cannot feel your pains nor you mine" militates against the proposition, "I have the same pain as him". But, if one regards the proposition, "I cannot feel his pains" as a

grammatical proposition its negation should, at least from Wittgenstein's position, make no sense. But, according to Hacker (1990) the statement, "I have the same pain as him" is not obviously nonsense: I can exploit such features as the location, intensity, phenomenal characteristics, antecedent causes, and so on, to claim that two people have the same pain. So the temptation remains to provide some distinction between the pains which are qualitatively identical but numerically distinct.

Frege, guided by his adoption of 'the common expedient', separated each person's thoughts as being numerically distinct whilst conceding that they could be qualitatively the same. Hacker will not allow such a distinction to apply:

> Two people with migraine may suffer in exactly the same way, viz. both have a splitting headache. And then we say that they have the same pain. Is it then numerically the same? No—it is neither numerically the same nor qualitatively the same. That distinction belongs to the domain of physical objects and has no application here. The question 'Whose pain?' is answered by identifying the person who manifests pain. The question 'What pain? is answered by specifying the intensity, phenomenal characteristics, and location of pain as indicated by the sufferer. And two people who suffer from the same illness may indeed have the same pain, just as two chairs may have the same colour. (Hacker, 1990 pp. 52-53).

Recall Wittgenstein's argument presented in Chapter One. Wittgenstein explains that the source of confusion entailed within the two positions of logicism and psychologism is apparent in seeking a criterion for comparison of the two alternatives. By separating the mental act from the mental content one is *tempted* to draw comparison between the two position and give priority to one or the other. Of particular concern to Wittgenstein was the natural temptation to sublime logic—to seek out a third realm for the logical entities to occupy. Such a temptation operates here according to Hacker and for the same reasons. It is tautologically true that sensations are private and thus correct to declare that, 'I cannot feel his feelings nor he mine', and it is also true that one can say, without making a nonsensical claim, that, 'I can have the same pains as him', therefore it is tempting *to seek out a distinction* and to give priority to either one of these positions.

Hacker (1990 p. 53) states:

> Labouring under the illusion that two people cannot have identical pains, sense impressions, or feelings, but only exactly similar ones, we may, like Frege, hasten to ensure that two people *can* have, think, or entertain *identical* thoughts. For we may argue, if discourse is to be intelligible, surely what A thinks must be communicable to B; it must be possible for B to grasp the very same thought that A entertains.

Consider Harré's conclusion:

> We must start with the plain fact that public conversations about logically private feelings are possible, and for the unassailable reason that they do actually occur. But the considerations above set out the conditions under which it would be impossible for them to occur. So one or both of the conjuncts that make up those conditions must be false. Either the meaning of a feeling or sensation word is not determined by that which it is used by a speaker to refer to, or sensation words are not used to refer to private and subjective feelings, or both. Since we do talk about our feelings we could not be happy rejecting the idea that those words are used to refer to what we plainly take them to denote. So it must be the denotational (or referential) account of their meaning that has to be rejected. (1988 p. 106).

Hacker insists that such a conclusion is redundant and motivated by a condition which is in itself illusory. We are tempted into the debate concerning the communicability of private states by treating seriously the distinction between qualitative and numerical identity. It tempts us, although Harré clearly does not fall to this temptation as Hacker must concede, to draw a comparison, based on some metaphysical presupposition, between qualitatively and numerically identical thoughts, experiences and so on. Such a temptation leads to the position of Frege:

> It is incoherent in as much as it would only make sense to talk of different people thinking the numerically identical thought if it made sense to talk of them thinking qualitatively identical, but numerically distinct, thoughts. But it does not; for that distinction, which applies to the domain of objects, no more has application to thoughts than it does to experiences. It is redundant, since the apparent difficulty this manoeuvre was designed to meet is itself illusory. Frege was right to deny the psychologicians' thesis that different people's thoughts can at best be qualitatively identical, but misguided to think that the only alternative is to reify thoughts in order to ensure the possibility of the numerical identity of different people's thoughts. (pp. 53-54).

Hacker maintains that presenting the argument in the way Harré does tempts confusion but concedes that it is not wrong for it to be presented in the way it is. Harré does not consider that the only alternative is to reify thoughts. Importantly Harré includes the qualification that, "There would be no way in which I could have acquired them in some stable and rule provoking way."(p. 106) which on Hacker's view serves the dual purpose of exposing what is incoherent in the genuine private language and exposes the consequence that it is incommunicable. Thus the escape from the position that Frege offers is for Harré to produce an alternative which does not place the meaning of psychological predicates in some 'third realm'. Those who stray to the thesis that language use necessarily involves appeal to other persons depart from Harré's path here. When they assert that language use is determined by society they sever the relation between a rule and its extension in the same way that Frege does.

Hacker (1990 p. 53) continues:

> Hence it is tempting to insist, as Frege did, that thoughts are like experiences in not being perceptible objects in the physical world, but unlike them in not being subjective objects in the inner world that is private to each subject of experience. Like objects in the physical world they need an owner. They are objective, independent existences, like substances, only not spatio-temporal. And one may even go so far as to postulate a 'third realm' for them to exist in together with numbers and other abstract objects.

The 'third realm' for the constructionists is language determined by society. Society provides the objective, but not spatio-temporally objective, realm in which our psychological world 'exists'. Because we all belong to a society and speak a language, communicate our thoughts, the ownership of our thoughts is manifest in our ability to speak a language. Our skill in communication is what allows us the ascription of having thoughts, feelings, and so on. In as much as some of this might be conceded as being broadly Wittgensteinian it is not Wittgenstein's argument, nor would he support the argument on which these conclusions rest. Constructionists who posit this 'third realm', that language, broadly conceived, determines our psychological reality within its shared use in communication, must abandon considerations of an unshared language—i.e thoughts which do not arise out of a shared use of communication—they would be meaningless.

Hacker accepts that the statement "I cannot feel your pains nor you mine" can be stated without error as a grammatical statement. But Hacker admonishes attempts to distinguish this statement from its, *prima facie*, negation: "I can feel the same pains as you". The negation of "I cannot feel your pains nor you mine" is "I can feel your pains and you mine" and Hacker hastens to ensure that attempts to disqualify this latter statement are nonsensical. But surely there must be room for such a distinction within Hacker's argument. If one concedes that Harré's claim is indeed a grammatical claim, as Harré clearly states, then the consequence is that the negation should make no sense—but Hacker claims otherwise "I have the same pain as him" does make sense to Hacker. This would not be problematic—an inconsistency with Wittgenstein's claim that the negation of a grammatical claim makes no sense—if one did seek out some distinction: say that of qualitative and numerical identity of pains. Hacker rules out this manoeuvre. But Hacker only dismisses this manoeuvre when it is presented as an empirical, super-empirical or metaphysical distinction. Hacker's argument is effective only in the sense that it exhausts all attempts to provide a distinction between qualitative and numerical identity of pains.

However, Hacker clearly cannot exhaust all possibilities because the acceptance of both propositions ('I cannot feel your feelings', and 'I can feel the same feelings as you') as grammatical propositions, when they superficially contradict each other, is inconsistent—Hacker must admit that some distinction applies in order to accept that it makes sense to claim "I have the same pain as him". Hacker admits as much above with his concession to Frege that he was right to suggest that different person's pains can at best be qualitatively identical.

If Harré is not tempted to distinguish between qualitative and numerical identity of pains on the basis of some metaphysical presupposition then Hacker's previous argument is ineffective—he has not established what is misleading about the inclusion of a discussion of the incommunicability of the private language argument premissed on the grammatical truth that 'I cannot feel you pains nor you mine'. The implication: "I could never know what your words meant, nor you what I meant by mine." would follow from the first premiss regarding the grammar of sensation terms. The only problems which can be recognised as correct in Hacker's admonishment of the 'implication of incommunicability' so far is that such an argument *tempts* the inclusion of a metaphysical distinction between qualitative and

numerically distinct sensations, and so on. And this obscures the internal relation between meaning, language and understanding.

Hacker (1990) never fully recognises the presented inconsistency. Nevertheless, none of above considerations should undermine Hacker's argument that the incommunicability of the private language argument can be derived from the recognition that the genuine private linguist cannot use his putative definitions in a regular and rule-governed manner since they are not definitions at all. Nor should the above undermine the arguments presented by Hacker against those who would posit some metaphysical or superempirical distinction between qualitative and numerical identity of such things as pains—for example, Frege. And that this presentation of the private language argument tempts confusion. But it does leave open the interpretation that the private language argument consists of two arguments which interlock together as both Pears (1988) and Harré (1988) suggest. Nevertheless, Hacker will not concede the point lightly. Hacker still insists that the 'incommunicability argument' distorts Wittgenstein's philosophical method.

Reductio Ad Absurdum:
The distortion of Wittgenstein's philosophical method

Pears (1988) argues that the private language argument can be (it certainly has been) regarded as a reasonably separate argument within the text of the *Philosophical Investigations* (p. 328). While he acknowledges its place within the text he goes further to add:

> Indeed, the argument must have a certain independence, because it is a *reductio ad absurdum*, and it is essential to such arguments that the thesis under attack should be clearly formulated, and that all its premisses be unequivocally identified. (p. 329).

In Chapters Six, Seven and Eight, Wittgenstein's philosophical method is outlined. In particular Wittgenstein rejects the idea that he can establish the falsity of any other argument (Truth and falsity belong to the propositions of natural science. Philosophical propositions present questions concerning sense). Rather, Wittgenstein's philosophical method relies on establishing that his target posits a position which is nonsensical:

> The fundamental fact here is that we lay down rules, a technique, for a game, and that than when we follow the rules, things do

> not turn out as we had assumed. That we are therefore as it were entangled in our own rules. (PI§ 125).

For Wittgenstein the task of the philosophy is to expose the confusions which lead us to a nonsensical position. It is true generally, and not just a characteristic of the private language argument, that Wittgenstein seeks to establish the senselessness of other philosophical positions. The benefit that can be gained by describing the private language argument as an independent *reductio ad absurdum* is that it points out an aspect of Wittgenstein's philosophical method. However, does describing the private language argument as a *reductio ad absurdum* capture the complexities of Wittgenstein's method?

Hacker's argument that the 'incommunicability argument' is misleading and redundant must be considered against the assumption that he disagrees at this point. Hacker differs from both Pears (1988) and Harré (1988) in a fundamental way. Hacker (1990) accepts Pear's characterisation of the private language argument with the qualification that:

> The refutation of the supposition of the possibility of a private language is, *in a loose sense*, a reductio ad absurdum of an array of deep presuppositions. (1990 p. 21) (Emphasis mine).

Hacker (1990) regards the 'implication of incommunicability' to be a redundant argument which does not elucidate the complexities of Wittgenstein's method and distorts Wittgenstein's argument. But could the 'incommunicability argument' be presented as an independent *reductio ad absurdum* given recognition that the required distinction, between qualitative and numerical pains, experiences and so on, is presented as a grammatical distinction and not an empirical, or metaphysical presupposition? It is important to note here that Harré (1988) suggests that the structure of the argument is that of *Modus Tollens*—Hacker's only argument against such a presentation is that it is redundant—not wrong. There can be no doubt that Harré is trying to persuade us of the incorrectness of the premise: "... the meaning of a word is determined by and only by that which it denotes, and sensation words denote logically private feelings..." (p. 106). The argument that Harré presents is of the form *Modus Tollens*,. since the conditional contains the consequent that "...the only person who could know what he or she meant by his or her use of the word 'tickle' would be the current speaker.", which we take to be false, it follows that the antecedent is false also. If it is conceded that Hacker's

previous argument poses a substantial problem (With the recognition that it is not incorrect) for the argument presented in this way (because it does not, in itself, reveal why we reject the consequent) then perhaps it might be revived by stronger and more powerful argument of the *reductio ad absurdum*. The point here is whether or not the argument can be saved from Hacker's criticism by presenting it within a different, and purportedly more powerful (Lemmon 1965), structure.

Wittgenstein makes special mention of the method of arguing referred to as *reductio ad absurdum* in *Lectures on the Foundations of Mathematics*.

> "The puzzle arises because one regards a contradiction as a sign that something is wrong."—There is a particular mathematical method of *reductio ad absurdum*, which we might call "avoiding a contradiction". In this method one shows a contradiction and then shows the way from it. But this doesn't mean that a contradiction is a sort of devil.
>
> One may say, "From a contradiction everything would follow." The reply to that is: Well then don't draw any conclusion from a contradiction; make that a rule. You might put it: There is always time to deal with a contradiction when we get to it. When we get to it, shouldn't we simply say, "This is no use—and we won't draw any conclusions from it"? (LFM, XXI, p. 209).

The contradiction in issue is presented within Harré's conclusion. The initial conditions set up within the 'incommunicability argument' lead to a contradiction. We do speak a shared language but this is seemingly impossible under the conditions described:

> We must start with the plain fact that public conversations about logically private feelings are possible, and for the unassailable reason that they do actually occur. But the considerations above set out the conditions under which it would be impossible for them to occur. So one or both of the conjuncts that make up those conditions must be false. Either the meaning of a feeling or sensation word is not determined by that which it is used by a speaker to refer to, or sensation words are not used to refer to private and subjective feelings, or both. Since we do talk about our feelings we could not be happy rejecting the idea that those words are used to refer to what we plainly take them to denote. So it must be the denotational (or referential) account of their meaning that has to be rejected. (Harré, 1988 p. 106).

Reductio ad absurdum type arguments rely on the recognition that the conclusion is false or absurd. Importantly, one must recognise that the

argument is valid: that the conclusion follows logically from the premisses. The acceptance of the absurdity of the conclusion invites one to scrutinise the premisses in order to reject at least one of them.

Frege offers us a *reductio ad absurdum* concerning the incommunicability of private states. (It differs from the structure of Harré's argument in an important way). Backer and Hacker offer Frege's argument:

> '[I]f everyone had the right to understand by this name ["one"] whatever he pleased, then the same sentence about one would would mean different things for different people—such sentences would have no common content' (FA, i) Consequently, 'if the number two were an idea, then it would straight away to be private to me only. Another man's ideas is, ex vi termini, another idea. We should then have to speak of my two and your two, of one two and all twos' (FA, §27). Yet in spite of this endless proliferation of objects which the psychologician considers to be the proper objects of mathematical investigation, it would be impossible to prove that the number of natural numbers is infinite (FA,§27; RH,334)! And no shared and intersubjectively testable judgments could be formulated at all! The derivation of these consequences Frege viewed as a *reductio ad absurdum* of the psychologistic thesis that the contents of mathematical expressions are uniformly ideas. (Baker and Hacker, 1984 p. 52).

If one were to abandon the *modus tollens* structure which Harré (1988) presents and offer the 'incommunicability argument' in the form of a *reductio ad absurdum* one would differ from Frege's argument, as already indicated, in the important sense that one would present the premiss 'I cannot feel your pains nor you mine' (Harré, 1988 p.106) as a grammatical claim as opposed to the metaphysical claim that Hacker (1990) argues against.

There are two consequences of accepting the invitation to scrutinise the premisses of the argument given the absurdity which is apparent with the contradictory conclusion. One may recognise that one or other of the above premisses is false—in particular, the premiss "..the meaning of a sensation term is established by reference to an inner private object."(p. 106). The alternative representation of the argument is to dismiss as the premiss as nonsensical.

Wittgenstein warns us against presenting such statements as limitations about what can and cannot (Metaphysically) be achieved:

> Do not say 'one cannot', but say instead: 'it doesn't exist in this game'. Not: 'one can't castle in draughts' but 'there is no castling in draughts'; and instead of 'I can't exhibit my sensation'—'in the use of the word "sensation" there is no such thing as exhibiting what one has got.' (Z §134).

Consequently, The objection is not whether I can have the same pain metaphysically and more importantly Wittgenstein's argument does not establish that such claims are false. But, *ceteris paribus*, it is *senseless* to suppose I can have his pain. The statement is ruled out by the way we use our language.

Wittgenstein states:

> Again you must not forget that " A contradiction doesn't make sense" does not mean that the sense of a contraction is nonsense.—We exclude contradictions from language; we have no clear-cut use for them. (RPP, II, 290).

There is a temptation to replace the conditions of truth and falsity with sense and senselessness: since such and such makes sense it follows that it must be nonsense to assert such and such. But Wittgenstein's method is distorted within this reasoning. Clearly Wittgenstein's method will not avail itself to describing the premisses of an argument as simply false (LFM, XI, p.102). Harré (1988) should not have described either of the conjoined premisses as 'false' (p. 106) since this implies that the required distinction between qualitatively and numerically distinct pains is an empirical or metaphysical distinction (something which could be established as true): alternatively he is wrong to suppose that he uses the premiss, 'I cannot feel your pains nor you mine' as a grammatical proposition. But what if the condition "..the meaning of a sensation term is established by reference to an inner private object."(p. 106) is rejected as senseless within the *reductio ad absurdum*?

Wittgenstein, again, issues a warning (RFM, IV, 28, p. 147):

> We can always imagine proof by *reductio ad absurdum* used in argument with someone who puts forward a non-mathematical assertion (e.g. that he has seen a checkmate with such and such pieces) which can be mathematically refuted.
>
> The difficulty which is felt in connexion with *reductio ad absurdum* in mathematics is this: what goes on in this proof? Something mathematically absurd, and hence unmathematical? How—one would like to ask—can one so much as assume the

> mathematically absurd at all? That I can assume what is physically false and reduce it *ad absurdum* gives me no difficulty. But how to think the—so to speak—unthinkable?!
>
> What an indirect proof says, however, is: "If you want *this* then you cannot assume *that*: for only the opposite of what you do not want would be combinable with *that*".

In Harré's argument one is not entitled to scrutinise either of the first two premisses: both, it is conceded, are grammatical truths. That, "I cannot feel your pains and you cannot feel mine" is constitutive of our language games concerning sensation terms. Harré uses the premiss in the same way that one would when introducing the premiss that certain pieces cannot be combined to obtain a checkmate in chess. The problem for Wittgenstein is that when one issues the statement that a 'king and a knight cannot produce a checkmate' one is stating a claim about what constitutes the rules of chess. To claim otherwise is to alter the rules of chess somehow: giving the knight, for example, some hitherto unknown capacity within the game or perhaps conflating a stalemate with a checkmate. The proof which is supposed to convince one follows logically from the rules which make up the game. But in order to provide the *reductio ad absurdum* argument one must assume that it does make sense for one to produce a checkmate with a knight and a king. Such an assumption will make the mathematical proof useless since one would no longer have the basis for the logical implication—one would no longer be arguing about the game of chess but a game which is similar which allowed a knight and king to produce a checkmate.

Similarly, Harré's argument relies on the grammatical claim that "I cannot feel your pains nor you mine". To repeat, such a claim is a grammatical truth not an empirical observation—it is constitutive of the grammar of our sensation terms that we speak of them being distinguishable by reference to persons. Harré's argument is reliant upon the conditional, "If we think that the meaning of a word is determined by and only by that which it denotes, and sensation words denote logically private feelings, the only person who could know what he or she meant by his or her use of the word 'tickle' would be the current speaker."(p. 106). It is the claim that sensation words denote logically private feelings which is in dispute. By logical implication from, 'I cannot feel your pains nor you mine' the absurd conclusion is reached, 'The only person who would know what they meant

by the use of their sensation terms would be the current speaker'. Such a conclusion precludes communication and thus doubles the absurdity.

Recall Wittgenstein's remark: 'The proposition "Sensations are private" is comparable to: "One plays patience by oneself"'(PI §248). The claim 'I cannot feel your pains nor you mine' follows by implication, when considered as a grammatical proposition, against the background that our sensation terms acquire their meaning through their use within a particular language-game. But in the *reductio ad absurdum* argument one must treat as sensible the claim, 'I can refer to my logically private feelings' in order to establish the senselessness of the premiss. But it does not follow that, 'I cannot feel your feelings nor you mine' when one is forced to consider an altered language-game. Thus, in order to establish the *reductio*, one must step outside the original language-game in which the grammatical claim, "I cannot feel your feelings nor you mine' belongs. The mathematical proof of the claim, 'I cannot checkmate the opposition with a knight and a king' follows only when one is considering the game of chess. If someone offers a claim which does not accord with the rules of chess we should simple point this out and remind him of the rules. This accords with what Hacker (1990) takes as the basic purpose of the private language argument—viz, to expose that the genuine private linguist has no rules to follow and that philosophical positions which assume that private experience is the bedrock of our language entangle themselves within their own rules in assuming that there any features of a language present within their presuppositions. Pears (1988) concurs:

> ...any interpretation of the private language argument will remain incomplete until it has told us what exactly indicates commitment to the unacceptable theory. The abstract reductive argument needs to be connected with actual examples of philosophical theorising (p. 350).

The alternative is to argue over what the *real* rules are: in the game of chess, the ones which allow a checkmate with a knight and king and the ones which do not. And this situation, as will be explained in later chapters, is not characteristic of Wittgenstein's method—(Chapter Six pp. 177-183).

It can only be assumed that what Hacker finds problematic with the claim "I cannot feel your feelings nor you mine' is what it actually does within the 'incommunicability argument'. Wittgenstein's suggestion 'for only the opposite of what you do not want to abandon would be combinable with

that' can be explained with reference to the concern over the supposed distinction between the qualitative and numerical identity of pains. We are tempted by the form of the propositions 'I can feel the same pain as him' and "I cannot feel his pain" to treat them as opposites in the *reductio* argument. But there is a difference between 'I can feel his pain' and 'I can feel the same pain as him' as must be admitted by both Hacker (1990) and Harré (1988). Since if one or other, or both, operate as a grammatical claim then they cannot be opposites—there must be some distinction in the way they are used (This is what allows Hacker concession that the 'incommunicability argument' is not wrong). By exploiting this similarity in form we might be tempted to argue the 'incommunicability argument' by *reductio ad absurdum* . As Wittgenstein points out he has no difficulty with this type of argument provided that it used to establish what is physically false, but the grammatical claim cannot be used in this way. So the 'incommunicability argument' would not be saved from Hacker's criticism by presenting it within this different format.

Hacker (1990) regards the 'incommunicability argument' as redundant and misleading. When the required distinction between qualitative and numerical identity of pain, for example, is premissed on the presupposition of some metaphysical argument the argument distorts the internal relations between language, meaning and understanding. When the required distinction is presented as a grammatical distinction, within the structure of a *modus tollens* Hacker (1990) argues that presenting the consequence of incommunicability is not wrong (and therefore not redundant), just misleading. If the argument were adjusted to the more powerful argument of the *reductio ad absurdum* then Wittgenstein's method is distorted—it tempts one to treat the required distinction between the pains I have and that aspect of pains which can be shared as being based on some metaphysical distinction or the premiss which is supposed to lead to the contradictory result serves no purpose. Hacker (1990) suggests that the consequence of incommunicability is derived by implication from the conclusion that the genuine private linguist cannot use his naming relation in a regular and rule-governed way—that the private language is not a language and is, "...but a phantasmagoria of philosophy." (Hacker 1990, p. 97).

Thus Harré's version of the private language argument is poised delicately at limits of where Wittgenstein finishes and where others, such as those constructionists who would posit the 'third realm' of language use being

'determined by society', venture boldly ahead only to be lost. Harré (1988) runs perilously close to interpreting the private language argument in a way which would distort Wittgenstein's intention and his method. However, Harré's purpose, as indicated previously, is to offer an alternative framework for psychology which is informed by Wittgenstein's philosophy. If Hacker concedes that the 'implication of incommunicability' is not wrong and that certain truths can be 'squeezed out' of the premiss 'I cannot feel your pains nor your mine' then he should recognise also that such arguments when presented within psychology are lessons which do indeed belong to Wittgenstein's legacy. It must be conceded that such argument have the potential to mislead. Nevertheless, unless one ventures forward and posits the external relation between language and understanding (That understanding is manifest in demonstrating one's grasp Frege's Platonic entities in communication, or that understanding is manifest in the demonstration of one's accordance with the rules of *determined* by society) the presentation of the 'incommunicability argument' presents no conceptual problem.

Both Hacker (1990) and Harré (1988) recognise that the private language argument has been misinterpreted by those who would rule out the possibility of an individual developing a rule in isolation—which is a symptom of severing the internal relation between language and understanding. Hacker (1990) is too quick to admonish the 'incommunicability argument', despite this being one route to positing the 'third realm', since it appears to have some contribution within psychology. Harré (1988) should recognise that the argument has the potential to mislead, particularly in the light of those constructionists who do stray to the posit the external relation (Especially when such a claims as 'There could be no individual who is atomic and capable of the intentional use of symbols' is presented in an ambiguous way.) With these concessions made it is appropriate to examine the private language argument as it is presented by Hacker (1986, 1990) since the one, trivial, concern which might be still levelled is that the 'incommunicability argument' is still not the 'real' private language argument.

Wittgenstein's Private Language Argument.

Consider the German general again. Imagine that he is captured along with his scrambled message by the French underground resistance. Suppose that you are the interrogator and you wish to know the meaning of the scrambled sets of letters in the dossier you are given. The general, who has honestly forgotten the exact details of the troop movements, explains that the letters mean particular configurations of an Enigma machine. The letters along with the key to the code, mean particular states of the machine. This explanation is frustrating. It is the unintelligibility of such an explanation that Wittgenstein attacks with his private language argument.

Hacker (1990 pp. 94-95) explains:

> The consequence of incommunicability, however flows *perspicuously* from the further assumption that names of experiences (in the requisite sense) are given a meaning, i.e are explained, by reference to the items they name, and from the misleading principle that to understand such names is to know what they stand for. (Emphasis in the original).

The German general is trivially correct in explaining that his coded script stands for operations of the Enigma machine, but this tells us nothing about what 'standing for' consists of. The general does not explain anything about troop movements by his explanation. In the same way when philosophers and psychologists suppose that the meaning of a sensation is that which it names, i.e a 'state' of the 'Human-Enigma machine' they commit themselves to an explanation of psychological states which is equally unintelligible. Deciphering the text, given the key and an equivalent Enigma machine, does not tell you what a codeword 'picador' means—there is no rule for the application of the concept. The text is intelligible only against the background of the German language—rules for the use of the terms. But the German language is not part of the machine. The German language is the background which provides the intelligibility of encryptment and decryptment in this example. Similarly in the case of the genuine private linguist there are no rules for the application of naming relations. We should not be misled into believing that the German language, socially maintained, is the 'objective' criterion for the application

of rules for the use of words. The codeword 'picador' has meaning only in the sense that it is attached to a practice, in this case the title of some military operation. If we thought the German language held the answer to the meaning of this term we would think that the intercepted transmissions were about Spanish bullfighters.

Wittgenstein does not focus on the consequence of a private language—that it is not a language at all and is incommunicable. This is important for the considerations in Chapter Two. It was claimed that Wittgenstein's private language argument was a result of the application of a broader argument concerning rules and rule-following. Wittgenstein draws attention to whether or not the private linguist himself would be able to understand a language which is private—one that no one else in principle could understand, whether the private linguist himself could follow a private rule. In exposing that the private linguist could not understand his own private language Wittgenstein explicitly addresses the notion of rule-following which was presented in Chapter Two.

Wittgenstein's private language argument occurs at §243-315 of Philosophical Investigations. It starts:

> A human being can encourage himself, give orders, obey, blame and punish himself; he can ask himself a question and answer it. We could even imagine human beings who spoke only in a monologue; who accompanied their activities by talking to themselves.—An explorer who watched them and listened to their talk might succeed in translating their language into ours. (This would enable him to predict these people's actions correctly, for he also hears them making resolutions and decisions.)
>
> But could we also imagine a language in which a person could write down or give vocal expression to his inner experiences-his feelings, moods and the rest-for his private use?—Well, can't we do so in our ordinary language?—But that is not what I mean. The individual words of this language are to refer to that which can only be known to the person speaking; to his immediate private sensation. So another person cannot understand the language. (PI §243).

It has been suggested that it is a mistake to assume that language is necessarily a shared phenomenon. Wittgenstein here presents us with the soliloquist who follows a language in solitude, the Robinson Crusoe who without extra-insular aid creates his own language in private (Hacker 1986).

This soliloquist does not represent what is meant by a private language. Wittgenstein's identification of a genuine private language is explained in the second paragraph of §243. Three features are clear. Firstly, the words of the private language refer only to that which can be known by the speaker (Epistemic privacy). Secondly, the words of the language refer to the speaker's own immediate sensations; only the speaker possesses the referents of his sensation words, nobody else could possibly have them (Privacy of ownership). Thirdly, *as a consequence of epistemic privacy and privacy of ownership*, another person could not possibly understand the language (Hacker, 1986 p. 254).

In Chapter Two the notion of following a rule was discussed at length in consideration of following a sign in a park. It was suggested that following a rule required a normative context in which the application of that rule would make sense. It might seem obvious that rules which govern our civil behaviour, such as park regulations, are normative in the nature described—I must learn the practices and customs of my society in order to know how to accord with the rules under which it operates. But in the case of internal states, sensations and the like, we suppose that we know what it means to be in that state because of our personal experience. Once I know that the word 'pain' is associated with the pain I experience upon some injury then I know what pain is. It might seem the most natural of suppositions that I know what pain is simply by interior ostensive definition (pointing inwardly: an ostensive definition is one in which objects are pointed out providing the criteria for the predicate). But similar to the view that it is natural to suppose that rule-following in mathematics is independent of normative considerations (That the truths of logic are true whether anybody considers them or not) it is a mistake to suppose that rule-following has any sense when employing an interior ostensive definition.

When the allies deciphered the transmission of the Enigma code the scrambled letters made sense against the background of the German language. This background provides the intelligibility of the encrypted information. What a coded message signified was only intelligible because the German language provided the context in which the decryptment made sense. Naming things requires a context. A code (A 'naming' relation between symbols and text) represents a language only because the sender and receiver comprehend that language. According to Wittgenstein such a context surrounds our use of sensation terms. There is a stability in our

application of the sensation named in the language game that we employ. Our naming of colours, for instance, requires that our judgement of colour sample be consistent. We, generally, take a green object to be called green because the world is such, and our perceptual capacities such that there is consistency for the application of the concept. Without this background our communication about such things as colours would be as pointless as enciphering German text for transmission to someone would did not understand German. The problem considered in the private language argument is whether this consistency in judgement can apply to an individual who names his own internal state.

Consider the dog in the park example again. A person can be in doubt as to the meaning of such a sign. But could person doubt their own internal 'sign'? Surely I cannot be in doubt as to the meaning of a sensation term, my internal states determine the meaning. What I mean by pain, for example, is the sensation I name with the label 'pain'. Surely if I name my experience with a symbol, say N, then I know what N means. But this is confused according to Wittgenstein, for in this situation there is no rule-following, no naming, no genuine features of a language at all.

If I was in doubt whether my actions are in accord with the rule offered by the park sign I can point to the park sign and offer an explanation of my action on the basis of my interpretation of the meaning of that sign. But my private sensation, which I name N, is radically different from that of the sign in the park. I cannot point to my own sensation to offer some justification for the symbol I attach to it. (Notice here it is not that another person cannot point to my internal state—I cannot point to it!)

Suppose that I walk the dog further into the park and wonder whether my actions are still in accord with the park sign. I must call to mind the park sign, if I remember it to accord with my interpretation, then my actions are justified to the extent that my interpretation of the sign is still being adhered to. Notice here that it is not my memory of the sign that justifies my action. I might remember the sign incorrectly. Whether or not I am acting in accord with the sign is governed by the conventions which surround the customs of walking a dog in the park—the sign itself does not determine what is and is not in accord with the sign. We might like to say that when I label my internal state 'N', I just remember the sensation that 'N' signifies—my memory of the sensation justifies my use of the label 'N'. But in the case of the symbol 'N' being uttered as the result of some

memory nothing represents a rule for the use of 'N'. The social practice which surround park regulations provide the criterion of correctness for what is and is not in accord with a rule (Remember that even if I was cautious and leashed the dog there is still the possibility of the dog running off and my actions not being in accord with the sign's prescriptions). But in the case of the private linguist the 'practice' of applying the symbol 'N' to a sensation state is, according to Wittgenstein, nothing but an idle ceremony, for nothing justifies the application of 'N' to a sensation state—there is no criterion of correctness for the application of 'N'.

Surely my memory provides the criterion of correctness. Whether or not 'N' applies to a particular sensation state is determined by the memory. But here we are in the same situation as considering that my leashed dog is 'controlled' (see Chapter Two p. 51). The park sign does not determine what is and is not in accord with it, neither does my memory of a particular sensation state determine whether or not my memory is or is not correctly represented by 'N'. It is often assumed that Wittgenstein was addressing the fallibility of memory but this is not so. A sensation state does not provide the basis for the application of the naming symbol 'N' because in order for 'N' to correctly apply to the sensation state a further rule justifying the relation of 'N' to the sensation is required. But there is no such rule here! To remember the sensation correctly is not the same as remembering that 'N' stands for the sensation. Consequently my pointing inwardly to a mental state to justify my use of the symbol 'N' presupposes that in my action of pointing I correctly grasp the meaning of 'N' in order for 'N' to be represented. What looks like a justification for the use of 'N' is no justification at all.

Wittgenstein regards 'mental object' as irrelevant to considerations of the meaning of mental state terms. The 'private exemplar' is not the foundation on which to build our knowledge and understanding of mental states. The private linguist cannot understand his use of symbols in a regular and rule governed way. The problem for the private linguist is not that the conception of language he employs is incommunicable, but that it is not conceivable. The private language is not a language at all. Any philosophical, or psychological strategy which accounts for the meaning of psychological terms in this way is inherently confused.

The Dog in the Park meets the Beetle in the Box.

It would seem, if Wittgenstein is correct, that our language is not founded on our private mental samples. The constructionists who adhere to the sociality thesis recognise the importance of this. Surely 'mental samples' become irrelevant to our understanding of psychological states. Wittgenstein explores this at length:

> Now someone tells me that he knows what pain is only from his own case!—Suppose everyone had a box with something in it: we call it a "beetle". No one can look into anyone else's box, and everyone says he knows what a beetle is only by looking at his beetle.—Here it would be quite possible for everyone to have something different in his box. One might even imagine such a thing constantly changing.—But suppose the word 'beetle' had a use in these people's language?—If so it would not be used as the name of a thing. The thing in the box has no place in the language-game at all; not even as a *something*: for the box might even be empty.— No, one can 'divide through' by the thing in the box; it cancels out, whatever it is.
>
> That is to say: if we construe the grammar of the expression of sensation and model of 'object and designation' the object drops out of consideration as irrelevant.(PI§ 293).

If it were the case that we referred to the 'beetle' then, if communication is possible, the referring to the inner experience is a redundant exercise—like the wheel which is not attached to the mechanism. If we did refer to the inner state, the 'beetle', then communication would be impossible—not because speakers would never *know* whether they were referring to the same thing (as those who posit the incommunicability argument would suggest) but because each private linguist could not use their naming relation in a stable and rule-governed way.

So what conclusion can be drawn from all of this? Perhaps Wittgenstein is endorsing a kind of behaviourism. Note that behaviourism was, historically, the first attempt by psychology to avoid the arguments of Frege and is claimed by Kosso (1991) to adequately overcome the problems which were outlined by Frege's theory of ideas. (see Chapter One). Wittgenstein conveys his thoughts on this through the use of his imaginary interlocutor:

> Are you not really a behaviourist in disguise? Aren't you at bottom really saying that everything except human behaviour is

> a fiction?—If I do speak of a fiction, then it is of a *grammatical* fiction. (PI §307).

Social Constructionist's adopt an ontology for which there is no Wittgensteinian objection. Wittgenstein's private language argument is not an attempt to show that the only useful way to continue psychology is to abandon attempts to detail the nature of mental states. Wittgenstein has tried to persuade us that our investigations into such things as psychological states can be led astray by misrepresenting the grammar of mental state terms. The mistake exposed by the private language argument is that of representing the meaning of a mental state term to be that which we feel, that we can define what it is to be in pain by interior ostensive definition. We may mistakenly undertake an investigation of the 'mental' with this confused grammar. By misrepresenting the nature of the meaning of our terms we might look for some mental structure to support our naïve conception of the nature of psychological entities. None of this should be taken to endorse behaviourism. Wittgenstein's target is often reported to be the Cartesian conception of the mind. Insofar as the private language argument does present what many would suggest is an insurmountable obstacle for modern theorists who adopt a Cartesian ontology, to focus on this aspect of the private language argument is to unduly give consideration to one aspect of Wittgenstein's philosophy.

Can we say anything about the nature of mental states? Is the purpose of Wittgenstein's philosophy to tell us what can be said about mental states and how we should go about it? Consider:

> We are not analysing a phenomenon (e.g. thought) but a concept (e.g. that of thinking), and therefore the use of a word. So it may look as if we were doing Nominalism. Nominalists make the mistake of interpreting all words as names, and so of not really describing their use, but only, so to speak, giving a paper draft on such a description. (PI §383).

Like the Nominalists, Social constructionists often deny the existence of anything which can be said to represent a psychological concept like for example 'fear'. They do not deny that fear has some ontological realisation within human physiology, but deny that we are misled into believing we have the correct concept of 'fear' if we believe it to be a private internal mental, or physiological, process: those who would assert that 'thinking' is a matter of 'information processing' might be said to present a 'paper draft' of the concept of 'thinking.'

Wittgenstein explicitly denies that the conclusion of the private language argument is to rule out mental processes:

> Why should I deny that there is a mental process? But "There has just taken place in me the mental process of remembering..." means nothing more than: "I have just remembered...". To deny the mental process would mean to deny the remembering; to deny that anyone ever remembers anything. (PI§ 306).

Rather than viewing the private language argument as being directed against the idea of ruling out the mental inner we should see that it is a consequence of a particular orientation to the mental inner which is denied. The private language argument follows directly from the repudiation of the Cartesian conception of the nature of the mental, but: "We have only rejected the grammar which tries to force itself on us here."(PI§ 304). It is not the 'mental inner' that is denied but:

> The paradox disappears only if we make a radical break with the idea that language always functions in one way, always serves the same purpose: to convey thoughts—which may be about houses, pains, good and evil, or anything else you please. (PI§ 304).

As outlined in Chapter One, Frege severed the relationship between meaning and understanding by adopting the division between the apprehension of the object of judgement and the content of the judgement itself. This division made it necessary for Frege to regard thinking to be a mental process and the proper domain of psychology. This led Frege to view the sense of an expression to be contained by its communicability. The sense of an expression is objectively discoverable in language: sense is contained by reference to those objective 'Platonistic objects'. That each person understands one another is contained in their agreement over the conditions which make a proposition true. But, as has been presented, this left Frege with the mysterious connection of "...how one could grasp a sense, and in particular a thought, otherwise than as the sense of some expression, the thought expressed by some sentence. (Dummett, 1989 p. 317).

Crusoe's Language: the exploitation of the stable material exemplars.

Baker and Hacker (1985) agree that it is a fundamental mistake to insert between a rule and its extension the common agreement of a community.

The relation between a rule and its extension is *internal* as indicated in Chapter Two. It is a mistake to postulate some third 'entity' (the third realm) to support the application of a rule. Baker and Hacker indicate the error which pervades much of the social constructionism:

> These construals of Wittgenstein's concern with human agreement about rules, uses of language, and concept-formation correctly grasp that the concept of general consensus in definitions, judgements and actions plays an important role in his thought. But they take it at the wrong level of generality (trying to insert it between a rule and its extension), locate it wrongly (taking it to be a constituent of the concept defined by a certain rule, rather than as part of the framework within which a language-game is played) and draw the incorrect conclusion from it (that an unshared language, language-game or rule is an absurdity). (Baker and Hacker, 1985 p. 243).

We do in fact share our language within a social setting. Perhaps psychology need not concern itself with the philosophical problems which arise out of such imaginable circumstances as a neonate Crusoe and the like? It is true that we should orient ourselves to psychological concepts with the recognition that many concepts have necessarily social conditions of performance. Harré's (1989a pp. 442-444) conception of 'skill' and its role in bridging the gap between the physiological and social makes the point:

> ...the concept of a skill includes both the grounding requirement and the requirement that an individual who possesses the skill can demonstrate some suitable actions that meet the socially defined criteria for adequate performance. (pp. 442-443).

However, by taking the Wittgensteinian position at the wrong level of generality some constructionists form a mistaken conception of normative concepts. The problem is not that there are not concepts which properly enter into psychology which have social criteria for performance but how one introduces Wittgenstein's arguments about these concepts—whether Wittgenstein's arguments prohibit the use of non-socially defined meanings.

An individual in isolation from society becomes a great problem for some social constructionists. The private language argument is no help to them because it does not exclude the possibility of an individual following a rule in private. But a version of the sociality thesis relies on this exclusion and maintains that *all* psychologically meaningful acts necessarily must be collective. It would seem that, from Wittgenstein's perspective, an

individual is capable of being autonomous, that is, isolated from society, and capable of the intentional use of symbols. There is nothing conceptually awry in the notion that Crusoe follows a daily routine, written in a diary, which ends with setting his fishing net. Crusoe thinks that he has followed his routine until the morning when he discovers that the night before he had not completed his task and therefore had not acted in accord with his set of rules. Pears (1988 p. 366) calls this 'calibration on standard objects' and points out that it is a precondition of such a practice that the natural world is stable, that the objects picked out as criteria for the practice do not change from one day to the next. (see Chapter Four, pp. 137-143).

Do we interpret these imaginable cases of Crusoe on an island through our own conception of rules and rule following? Are we placing our interpretation of the actions of our solitary into our accounts of rules—much like the the situation of the caveman who produces a regular sequence on the cave wall?(see Chapter Two, p. 48). Just because we can form a rule to fit with a given regularity does not mean that the action is rule-governed. Wittgenstein suggests that we drop the assumptions of understanding the language of the solitary language uses and recognising his daily actions with our own, and analyse whether they will make a difference to our being able to interpret the regularities as indeed rule governed. The crucial question is whether or not someone else *could* master the language of a solitary individual not whether they do. As Pears puts it: "The fact that, if someone else had arrived on the scene, he could have shared the language, does nothing to show that the original stabilizer, standard physical objects, was not previously sufficient by itself." (cf. Baker and Hacker, 1984a p. 79).

Suppose instead of discovering Robinson Crusoe on an island we discover a solitary Martian who has crash landed in the New Hebrides on a deserted island. The Martian's language is extremely complex and 'he' does things which are extremely odd such as drinking vast quantities of sea water. The Martian is sufficiently similar to us in that he makes verbal noises which are associated with his actions. It might be extremely difficult for us to learn the Martian's language, and his actions might seem extremely bizarre to us as observers but in principle we can discover the rule-governed nature of his use of language which coincides with his regular behaviour. If we were patient enough we could indeed learn the Martian's language. The 'facts', that he is isolated and persists with rituals which are extremely odd, do

nothing to impede the possibility of him acquiring and using a language in a rule-governed way and us understanding that language.

What constitutes a genuine rule? There are several qualifications required to the above example. To determine whether or not the Martian is indeed following a rule which he understands it is necessary for him to be aware of the rule which he uses. The observer might determine this through the utterances of the Martian or by reference to an activity which is rule-governed such as playing a game with shells or sticks. The rule-governed activity must be sufficiently complex to be given the ascription of being rule-governed. Slugs probably follow a series of events with an apparent regularity but it does not constitute a rule governed activity because our concept of rule-governed will not stretch to such behaviours. The determination of whether a slug follows rules does not depend on whether the slug is aware of its activities we simply will not accept that a slugs behaviour, however regular, is complex enough to be considered a rule-governed activity. The question of whether or not someone is following a rule can only be answered in relation to the practice of applying the rule. An external observer must determine what constitutes what is and is not in accord with the rule. This presupposes that the observer can determine the internal relation between the rule and what accords with it—both terms of the internal relation are necessary. It must be possible to determine the rule and its extension: what accords and what does not accord with the rule. The determination of the criteria for the correctness of a rule-governed activity are found in the practice of applying the rule. In principle any genuine rule-governed activity will be discoverable on the basis of the public practice which determines the criterion of correctness.

A language can be an unshared language. But to be a genuine language the language must have those features of a language which make it rule-governed. To be a rule-governed language requires a technique for the application of terms within the language. That technique must be public. Because the technique must be public, note the absence of this public technique in a genuine private language, it is in principle possible that the language practiced privately can be discovered and used by others. But to be public does not necessarily mean that it must be a shared language. Only the possibility of it being a shared language is necessary.

Conclusions

The privacy considered in the private language argument is the absence of a public (not social) criterion which enables the regular use of the terms of a language in a rule-governed way. The least of the flaws of a genuine private language is its incommunicability. An attempt to premiss an argument about the incommunicability of a genuine private language by considering the possibility of a private language misconstrues Wittgenstein's point that a genuine private language is inconceivable. The point of the private language argument is to rule out the possibility that the meaning of psychological terms is determined by private ostensive definition. I cannot point inwardly to know what the word pain means. I do not prick myself with a pin to reassure myself that I have the correct meaning of the term pain when you use it. A solitary individual can be in pain and use the term, or its equivalent, in a rule-governed way. Robinson Crusoe would know that he has used the term correctly by reference to his natural behaviour upon lesion. All that is required is a practice, not necessarily a social practice, patently absent in the case of the genuine private linguist.

It was argued in Chapter Two that the 'no private language argument' could do nothing to impede the cognitivist programme. Those constructionists, such as Coulter, who attack the cognitivist using different variations of the sociality thesis, err in their interpretation of Wittgenstein. The source of error is the postulation of a third realm to justify the relation between a rule and what accords with a rule. Wittgenstein is widely misinterpreted on the importance of public criteria for the use and maintenance of language. Wittgenstein insists that a rule-governed activity must have some practice which is public to provide a criterion of correctness for the application of a rule—but this practice need not be a social practice. An 'atomic' individual, one separated from society, can have a public practice.

Cognitive science, indirectly, also entertains a mythological inquiry into the nature of the relation between a rule and its extension—postulating the relation to be causal. The difficulty for the doctrine has been addressed in Chapter Two. Wittgensteinian's private language argument illustrates the irrelevance of the 'private state' to understanding of concepts such as thinking, feeling, and so on. Leiber (1991) would have us pursue an irrelevant task with his assumption that there is something behind our language. Social constructionists adopt a dual ontology, which is

appropriate given consideration to Wittgenstein, ruling out any search for an understanding the 'mental', 'information processing' or 'consciousness' by addressing physiological structures or functional descriptions of 'mental processes'.

Frege maintains that the relation between a rule and its extension is paradigmatic. The laws of logic are as they are and must be this way across all time and space whether anyone is available to comprehend them or not. Some constructionists maintain that society provides the justification for our use of language and from this regularity the source and maintenance of our psychological states. These construals of Wittgenstein within social constructionism make the same mistake as Frege, which Wittgenstein specifically set out to dissolve, they place a 'thing' (a paradigmatic way of being or a society) between a rule and what counts as being in accord with this rule.

It is true that a private language conceived by Harré is incommunicable but this was not Wittgenstein's primary concern. Hacker (1986, 1990) notes that Wittgenstein devotes little attention to this consequence of the private language and instead focuses on the conceivability of the radically private language. That question is not: "What happens if we commit ourselves to a view of language which is radically private?" But: "Is a radically private language conceivable?" Wittgenstein attacks the notion that a radically private language is unintelligible not that it is incommunicable. The 'no private language argument' presented in Chapter Two argues along these lines but commits the error that it makes sense to consider a private language. To suppose that there is such a thing as a private language is an error. Coulter (1973) employs this line of argument in his consideration of insanity, viz., that insanity literally is a private language by virtue of the fact that no one else can understand the use of the terms an insane person produces. (a view that will be dealt with at length in the next Chapter). But, as Hacker (1990) puts it: "...there is no such thing, in this sense, as a private language—it is but a phantasmagoria of philosophy." (p. 97).

The intention of this chapter was never to demolish the claims of the Social Constructionists but to prepare some place for the concepts of insanity and creativity within that doctrine. The ontology of Social constructionism is accepted. An interpretation of the sociality thesis is what must be dismissed. If the 'sociality thesis' is interpreted as being derived from the claim that, "...there could be no being which is both atomic and

capable of the intentional use of symbols...", as Harré (1992 pp. 154-152) claims, and this is interpreted as ruling out the possibility of an individual developing a language in the absence of a community, then the forthcoming considerations of the concepts of creativity and insanity cannot be said to be compatible with the constructionist doctrine. It will be argued that this version of social constructionism cannot account for the concept of insanity, nor can it account for creativity because an individual who is either insane or creative, or both, breaks the practices of the society in which he or she resides. In adopting different practices the individual is isolated from the society in which he or she resides as much as Robinson Crusoe was isolated from England. The crucial point is that the form these new practices acquire is relative to the society from which they arise. The isolated individual develops new practices, meaning, and thought from the background from which the individual was isolated (Unlike a genuine neonate Crusoe). There is nothing in the private language argument to prevent this sort of privacy, despite what some social constructionists might claim. Society does not determine the meaning of psychological terms or the psychological character of an individual, although it does plays an important role.

Chapter Four

Wonderland

Autonomous Individuals

In Chapter Three it was decided that the central premiss of social constructionism is at odds with the philosophy of Wittgenstein—an 'atomic' individual, e.g. a neonate Crusoe, is capable, according to Wittgenstein, of the intentional use of symbols. A neonate Crusoe is not logically prevented from creating and using his own language. However, it is no real criticism of the social constructionist doctrine that its adherents make a claim which Wittgenstein does not support. The criticism might have an impact on those constructionists who claim Wittgenstein supports their view but even then the argument of Chapter Three addresses only one of the premisses of the social constructionist doctrine and leaves the conclusions untouched. What then is the problem declaring an 'atomic' individual incapable of language?

One might dismiss the problem from psychology by asserting that there are no neonate Crusoes; genuine 'atomic individuals' simply do not exist. However the concern here with atomic individuals is not empirical: wolf-children do not appear to obtain a language. Whether or not a neonate Robinson Crusoe exists, or could develop a language, should not be mistaken as an empirical question. The concern of this argument is not speculation about the capacities of socially isolated individuals. Nevertheless, despite their apparent silence, 'atomic individuals', if they exist, are not *logically* prevented from creating their own language (see Chapter Three). The argument turns on the notion of what an 'atomic' individual is exactly—the problem is conceptual. Clearly a neonate Crusoe, despite being a philosophical fiction and of no relevance to psychology directly, is atomic in every relevant sense of the word. But are there people who are 'atomic' in some relevant sense, who are not philosophical

fictions, who are ignored by a psychological research programme which views *shared* language as the basic psychological phenomenon?(Harré, 1989 p. 187).

To forestall any confusion which might arise from continuing with the criticised term 'atomic' it will be replaced with the term 'autonomous'. In particular it is important to extract what is essential to the notion of 'neonate' as it has been used in Chapter Three. The example of the 'neonate Crusoe' is introduced to forestall any attempt to sever the internal relations between following a rule, a practice, and an understanding of the criteria which accord with the fulfilment of that practice. It is tempting to introduce the fact that we learn from others into our understanding of the logical requirements of language use. The example of the neonate Crusoe is intended to preclude all societal considerations from being introduced to the argument so that the logical requirements of language lay clear to view (Those developed in Chapter Two). Thus discussion of 'autonomous individuals' is really just reference to Wittgenstein's philosophical insight that a rule and its extension are internally related, that one's ability to follow a rule is manifest in one's employment of that rule within a practice. Furthermore, nothing mediates between a rule and its extension. An autonomous individual is not simply a soliloquist, since this refers only to one's ability to speak to oneself in the absence of a community. Chapters Two and Three reveal the utter irrelevance of a community, or anything else, to the *logical relations* between thinking, meaning and understanding. Thus 'autonomous individuals' are those who participate in unshared language-games no matter how they are brought about.

From a philosophical standpoint considerations of a neonate Crusoe's capacities are irrelevant for that line of inquiry is thought to produce nothing interesting to philosophy. Consider Baker and Hacker's (1985 pp. 243-244) claim:

> It is just because unshared (as opposed to *unshareable*) concepts, rules, language-games are *not* conceptually awry that they are essentially uninteresting. Robinson Crusoe or the last Mohican make good fiction, but pose no deep philosophical problems of any kind...

Baker and Hacker argue that *philosophical* problems arise out of the "entanglements in our understanding of the conceptual articulations of our languages." (1984 p. 244). On Wittgenstein's view of philosophy,

philosophical problems arise only when there is an entanglement within language—when we make a mistake about the employment of our terms. But despite Baker and Hacker's reassurance, they direct their assertion against those philosophers (cf. Malcolm, 1988) who would suppose that something philosophically interesting is obtained by the mistaken view that a language absolutely requires a social context. Once it is established that this is not the correct conclusion to be drawn from the private language argument one might no longer be confused. However the conclusion that unshared language-games are essentially uninteresting presents a limited perspective on the function of philosophy—(To be further examined in Chapters Seven and Eight where it is argued that the attainment of philosophical clarity, a surview, is of critical importance to psychology).

Social constructionists seem liberated by those of this philosophical perspective. If we disregard neonate Crusoes as being philosophical fictions and assume that we all do engage in *shared* social practices, and that all conceptual confusions arise within these shared social practices, then the conclusion that a neonate Crusoe has the potential to develop and use a language is trivial and unimportant. Baker and Hacker's claim, and its importance to the conceptual issue identified in *psychology*, rests on two assumptions. Firstly, they assume that there really are no 'autonomous' individuals—nothing equivalent to a neonate Crusoe that might be relevant to psychology. Secondly, what is relevant to psychology, more accurately, theoretical psychology, is assumed to be the same as what is relevant to philosophy.

If there are people who develop unshared languages, concepts, or rules, then their capacities or potential capacities are indeed philosophically 'uninteresting'. The potential capacities of an individual who has an unshared language-game will not be solved by examining the 'conceptual articulations of our language'. But the investigation of these *potentials* is not an empirical search, to be undertaken by the researching psychologist; a psychologist might investigate the capacities of the individual: whether or not wolf-children develop a language. The task of studying the potentials of autonomous individuals, given that they do exists, belongs to theoretical psychology.

Are there people who are autonomous in the relevant sense of possessing unshared language-games, concepts, or rules? Obviously those who create

new concepts have, for a short time at least, an unshared concept, rule, or language. It is a logical requirement of a novel practice that it is unshared. Similarly those who are unintelligible to us because they seem to employ concepts in ways in which we are unwilling to accept (share) are also candidates. The concepts of 'creativity' and 'insanity' become the lens through which we can gain a clear picture of the relationship between philosophy and psychology. Social constructionists join Baker and Hacker in believing that autonomous individuals are 'essentially uninteresting'. The task then is to show how it is that social constructionists, like Harré (1989) and Coulter (1973), go wrong in believing that:

> ...language is such that it *must* be publicly acquired and the normativity of its uses socially sustained by collectively citable rules and conventions.(Harré, 1989 p. 168).

It is true that language must be publicly acquired if that means that to be a language at all it must acquire meaning through employment in a practice. However, must it be *socially* sustained? Fischer (1990 p. 284) goes as far as saying that an individual's insanity may result from, "...the possibility that socially deviant rules will be internalised". On this view, the insane person manifests some predetermined form of deviance which occupies the status of 'rule' in some part of society. But it has already be argued that an individual's understanding of a rule is not determined by anything: not a society, a causal process in the head, divine inspiration, and so on. Various forms of social constructionism are at present the most popular attempts to introduce Wittgenstein's philosophy, and his conception of philosophical psychology into psychology generally. By examining the concept of 'insanity' it is hoped that a clear view of what is important from a Wittgensteinian perspective, when examining psychological terms, will be developed.

Central to the task ahead is to gain an understanding of the concept of 'intelligibility'. What makes a practice intelligible, or at least potentially intelligible is that it is indeed a practice. This should be clear from the considerations set out in Chapter Three where it was seen that a genuine private language is unintelligible and therefore not a practice, or not a language at all. Also considered were the necessary preconditions for an observer to declare an action rule-governed as opposed to a regularity on to which we impose a rule. What makes a practice genuine is that it is rule-governed; there is an internal relation between a rule and what accords and conflicts with a rule. This need not be a social practice, although almost all

interesting practices are social practices. That non-social practices can occur has been established in Chapter Three. What makes a practice unintelligible is that it is not a practice at all, viz., that it is not rule-governed.

A summary of the pieces of the puzzle so far might be helpful. To expose the mistakes of social constructionism it is necessary to examine how Coulter (1973) fails to adequately explain the concept of insanity (an example of a concept that refers to autonomous individuals). Since social constructionists purport to offer an account of how Wittgenstein's philosophy should operate in psychology and it has been argued in Chapter Three that this is sometimes mistaken, by exposing the misinterpretation of Wittgenstein in the application of his philosophical thought to the concepts of creativity and insanity we can rid social constructionism of an error which impedes a clear conception of Wittgenstein's view of the relationship of philosophy to psychology. Underlying an understanding of the concepts of insanity and creativity is the concept of 'unintelligibility'. By examining Wittgenstein's thought on the limits of intelligibility in *On Certainty* (1969) it is possible to outline the essential features of the concept of creativity from a Wittgensteinian perspective which is to be contrasted against a social constructionist perspective. The aim here is to extend the social constructionist doctrine not defeat it.

Baker and Hacker (1985) suppose that philosophically there is nothing conceptually awry with a neonate Crusoe developing a language and therefore there is no philosophical problem, no conceptual confusion, or misunderstanding in our language concerning neonate Crusoes. But social constructionists provide the problem for investigation in psychology since they assert that an autonomous individual cannot, as a matter of fact, have a language. So, if we remove the idea that neonate Crusoes are simply philosophical fictions, and suppose that autonomous individuals do exist in the relevant sense of being individuals who follow a language privately, then within *psychology* there is conceptual confusion. The intention of the following argument is to expose the conceptual articulations of Coulter's social constructionism and his account of insanity as nonsense. This will enable a contrasting account of a conceptual development in psychology by advancing a theory of creativity built out of a study of the grammar of the concept of insanity.

Patent Nonsense to latent nonsense and back again

Public ignorance of insanity is perhaps the reason behind philosophical assertions that what lies beyond sensible thought is madness. Only children are excused for engaging in frivolous thought. The 'stupid' are punished by the 'intelligent' who cling to the security of acquired knowledge and methods of reasoning which no one has been able to explain. One philosopher, Charles Lutwidge Dodgson (1827-1898), explored the nature of madness through the medium of childrens' books. Although he was a serious logician who contributed to the fields of mathematics and symbolic logic, he is best known for his stories which were penned under the pseudonym 'Lewis Carroll'—the most famous of all his works is *Alice's Adventures in Wonderland.*

In the introduction to *The basic laws of Arithmetic,* Frege (1964 reprinted translation) questions what it would be like for us to encounter beings who thought in ways which were contradictory to the way we think. In *Alice's Adventures in Wonderland* Alice encounters the Cheshire cat, among others, and she is placed in exactly the situation which Frege describes. Alice must decide what to make of the strange beings she encounters who engage in peculiar practices. Frege's option, although I am sure he did not have the Cheshire cat in mind, is to declare the beings mad:"Their thinking would appear to us as a hitherto unknown type of madness."(BLA, p. xvi). Carroll presents mad characters (The march hare and the mad hatter) but it is the Cheshire cat who brings out the significance of the madness theme in the book and forces us to question the sense of insanity in a 'mad world'. Wittgenstein comments on Frege's introduction to the *Grundgesetze der Arithmatik:*

> "...here we have a hitherto unknown kind of insanity"—but he never said what this 'insanity' would really be like." (RFM I, §151, p. 44).

Of the three logicians the most useful insight into what it might be like to encounter beings who thought in ways contradictory to our own comes from a child's story book. Frege's unwillingness to consider what madness is like is noted by Wittgenstein as an error, but it is Carroll who actively explores the notion of madness, perhaps not accidentally in a medium where the frivolous is acceptable.

Wonderland is an insane world where everyday events and principles which we take for granted are subverted into chaos and confusion (most notable is the concept of time—a grammatical regularity). Alice's encounter with the Cheshire cat offers the reader the opportunity for an explanation of the sense of Wonderland. The Cheshire cat informs Alice that, "...we're all mad here. I'm mad. You're mad."(p. 78). Frege's assertion is the same as the cat's: viz., if we abandon our conceptual system of logic then surely nothing but madness remains. In Wonderland there is only a semblence of our ordinary practices so it is supposed only madness remains. Frege's appeal to the foundation of sense and logic might seem acceptable given this line of reasoning. For if one enters Wonderland, as Alice did, then surely one is mad. But such appeals are unwarranted. Consider Alice's reply: "How do you know I'm mad?" (p. 79). Which is equivalent to Wittgenstein's query: what would this 'insanity' really be like? The cat's reply is: "You must be or you wouldn't have come here." (p. 79). The cat is forced to employ an argument based on the syntactical form of the words used in his syllogism. The cat's argument is valid but meaningless—for it does not inform Alice what madness is, just that one criterion of madness is being in Wonderland. The narrator asserts: "Alice didn't think that proved it at all."(p. 79).

Philosophical Investigations is littered with allusions to Lewis Carroll's writings. That Wittgenstein read and drew from the stories of Alice is unquestionable (Pitcher 1967). (There are explicit references to Lewis Carroll in *Philosophical Investigations* at PI §13 and on p. 198.) Both authors probed the nature of nonsense, but Wittgenstein held a radically different conception of the purpose of nonsense from Carroll. Wittgenstein's philosophy is devoted to clearing up misconceptions of philosophical thought which are entertained because they are superficially sensible but on closer examination are nonsense. Whereas Carroll held a different view. Pitcher (1967 p. 335) makes the point:

> Carroll turned his back on reality and led us happily into his (wonderful) world of myth and fantasy. Wittgenstein, being a philosopher, exerted all his efforts to drag us back to reality from the (horrible) world of myth and fantasy...The same terrain that is the playground for Carroll, is the battlefield for Wittgenstein. That is why, although standing very close to one another, they may appear to the superficial eye to be worlds apart.

It is the 'terrain' (a grammar) that we must explore to develop an understanding on the concept of insanity and from that an understanding of the concept of creativity. The idea that insanity lies *beyond* a practice is mistaken. The word 'beyond' carries with it the relativism which will be rejected. Frege inserts a paradigmatic way of being, that logic is true across all time and space, between a rule and it extension. To follow a rule is to accord with the basic truths of logic—the truths of logic prescribe sense rather than being constitutive of what is sensible. It follows from this that what lies outside logic is unintelligible (nonsense) and since insanity is considered unintelligible it follows that insanity must be represented as being 'outside', or 'beyond' logic. But because Frege misrepresents the relation between a rule and its extension, he mistakes the nature of the concept of insanity. Social constructionists sometimes make a similar mistake, which should be clear from Chapter Three. Therefore the similarity between the following account of insanity from Coulter (1973) and Frege's reasoning should be of no surprise.

Against the Social Construction of Insanity

In Chapter Three the fundamental principle of social constructionism was criticised in respect of its relation to the philosophy of Wittgenstein. If social constructionists assert that society *necessarily* creates the norms which we all follow then they cannot lend support from Wittgenstein. The problem is one of separating 'context' from 'social context' and essentially this is the problem will occupy the rest of this thesis.

To Coulter (1973), and social constructionism generally, the significance of unshared language-games could not be greater. Far from being philosophically uninteresting, unshared language-games are a great threat to the thesis of social constructionism. Coulter has tangled with a concept with seems to represent an unshared language-game, that of insanity. The possibility of an unshared language-game undermines the thesis that language is an essentially shared phenomenon created and maintained intersubjectively. If an insane person has an unintelligible or contradictory way of thinking, best represented by those phenomena we call delusions and hallucinations, then they do not conform to the social consensus. If someone were to claim that he could see with X-ray vision, despite all evidence to the contrary, we might say that he has abandoned the normal

conventions surrounding the use of the word 'seeing'. When Coulter claims that an insane person who is hallucinating is not a 'competent perceiver' he points to the fact that an insane person seems to abandon the social consensus (see below). The insane person has his own personal use of the word 'seeing'. According to social constructionism an unshared language-game is unintelligible—autonomous individuals are logically prevented from creating a language. If the insane individual operates outside the social consensus he would, according to social constructionism, be participating in an unshared language-game. Consequently those who are unintelligible to anyone else are insane by virtue not only of their unintelligibility to other people but also by the fact that they supposedly participate in an unintelligible practice, viz an unshared language-game.

Coulter's version of social constructionism misrepresents the relation between a rule and its extension which he exploits when considering the concept of insanity. Coulter explains the illusory impossibility of an unshared language by regarding those who do not share the assumed logical requirement of language, that is conformity to social norms, by adopting a common expedient. Reasoning by elimination he regards all those who share the practice to be intelligible and sane and declares those who fall outside the social consensus unintelligible *and* insane.

Coulter's (1973) account of insanity deals with the notion of an hallucination by appealing to socially prescribed conventions. To be a competent perceiver, according to Coulter, one must accept those conventions prescribed by society:

> This involves mastery of a stock of concepts; one could not perceive a table without the concept of a 'table', although one could certainly see *something* if one could see at all. Recognition of 'correct' or 'adequate' perception, then, is tied to a recognition of the social distribution of knowledge.(p. 115).

But this type of reasoning leads us to question what possessing the 'correct' or 'adequate' concept consists of. Coulter is mindful of not searching for some inner mysterious process to explain what an hallucination consists of but fails to adequately distinguish between 'seeing' and 'perceiving':

> Only someone trained in elementary botany could *see* a stamen; only someone trained in elementary physiology could *see* the fibula of a skeleton...(p. 115)(italics mine).

Coulter's previous distinction between 'perceiving' and 'seeing' is vacuous and should now be treated with suspicion. The claim that 'correct perception' is a social process but 'seeing' is a physiological process is empty if no reasonable argument is presented for a distinction. The claim made by a schizophrenic that he can see a pink and grey striped rhinoceros running towards him will not be explained by saying that he is not a competent perceiver but sees very well indeed—suppose that nothing he *sees* can be understood by his assessors. (see below Chapter Five p. 174).

Coulter runs into difficulty at every turn in his attempt to offer an account of what a 'correct' perception consists of. Coulter appeals to society as the final determinant for what is 'correct' in the same way Frege appeals to the basic axioms of logic. In Chapter Three it was argued that it is a mistake to place a 'third thing' between a rule and its extension. Here society determines whether or not a perception is 'correct' or 'adequate'. With the same reasoning as Frege, Coulter places insanity in the realm of the unintelligible. And, that which lies beyond what is sensible (determined by society) must be unintelligible. Therefore insanity, which is an unintelligible way of thinking, lies beyond our socially defined 'correct' or 'adequate' ways of thinking.

Coulter turns to Wittgenstein to support his conception of insanity. In particular he draws from Wittgenstein's last work *On certainty*, a collection of notes, presented as a separate topic, published after his death but accepted as not being a finished 'polished' work (Anscombe & von Wright, 1969 p. vi*e*). Wittgenstein addresses many issues within this work, most obviously the epistemological issues and propositions which have the form "I know...."(Morawetz, 1978 p. 1). Such issues have a direct bearing on the topics of creativity and insanity. Coulter relies on this work to support his general claim that insanity is a social ascription. But, as has been mentioned previously, it is a mistake to take Wittgenstein's arguments in isolation from what he deals with in other works—especially in this case where his work was 'unfinished'. Wittgenstein's *On Certainty* is a separate topic in one sense but it lends heavily on his previous works. In Chapter Three it was suggested that a general mistake of social constructionism was to insert society between a rule and its extension. Coulter's account of the concept of insanity serves to illustrate the misinterpretation of Wittgenstein and the mistake of social constructionism generally.

Coulter (1973 p. 137) appeals to the socially maintained conventions which provide the standard from which we can recognise legitimate doubting:

> We learn our natural language and factual beliefs *pari passu*, and together with that we find the socially sanctified areas of *legitimate* doubting...If we are in a position where we find someone apparently doubting something which we find (and claim others would also find) no grounds for doubting (e. g., the existence of hands at the ends of his arms), then we may treat such signs of doubt as 'signs of defect'—the apparent doubter is not after all doubting, but is stupid, joking, pretending or insane...Collective authority establishes the credentials for beliefs. This is true also of knowledge: 'knowledge is in the end based on acknowledgement'[C. §154], as Wittgenstein put it.(Emphasis in original).

What we take to be knowledge must be assessed against the practice of science within our culture. Those who abandon our techniques and practices, or perhaps never acquired them, we find unintelligible but this is not necessarily a 'sign of defect'. Wittgenstein was trying to explain that the certainty of a proposition like, "This is a hand" (Made by someone looking at his own hand) comes from a practice in which it makes no sense to doubt such things. Coulter falls within a variation of the Fregean reasoning which asserts that what lies beyond legitimate reasoning (either logic, or in Coulter case, social prescribed practices) is insanity, or some other defect. For example, consider Coulter's claim:

> These people, whether they believe that they are God, a machine, a corpse, or a many headed hydra, *appear to us to operate quite outside the bounds of our system of verification* and are therefore candidates for the ascription of insanity.(p. 136)(Emphasis mine).

On Coulter's view, similar to that of Frege's in essence, what lies beyond a particular practice (social practice) might be insanity. Coulter claims that Wittgenstein supports this idea by suggesting that what makes an assertion unintelligible is that it lies beyond our community standards. But, in the way Coulter uses this claim, it is a twist of Wittgenstein's point. The point to be drawn from Wittgenstein is that within our practice, or our culture, there is nothing, for example, which allows us to be mistaken about the existence of hands at the ends of our arms. It makes no sense to doubt the existence of your hand when looking at your own hand because there do not exist any criteria for doubting. There is no practice of doubting such things as whether there really are hands at the end of my arms when I look

at them or a floor beneath my feet when I open the door and walk out. Consequently, the application of doubt in this circumstance is nonsensical—that is, it has no use. To have a doubt it must be possible to be mistaken. But in ordinary circumstances there can be no mistake in the judgement that I have a hand when looking at my hand. The certainty which accompanies the observation that, "This is a hand" (when looking at a hand) comes from our practice in which nothing counts as a mistake in this circumstance. The claim "I don't have a hand" when looking at my hand is not a mistake but is unintelligible; we simply do not know what to make of such a proposition.

Although it might be possible to be mistaken about such things in unusual circumstances. Consider a person who claims to feel his hand when it has in fact been amputated. He might claim to feel his hand and we would say that his experience of a 'phantom limb' is mistaken and provide evidence of his mistake (get the amputee to look to where he thinks his hand is). But in the case where a normal individual states he does not have a hand, when looking at his hand, an error is not made for we have no way to expose the error. The normal person is not mistaken but unintelligible; we simply do not know what he means. Furthermore it is impossible to know what would convince a normal person otherwise. What would count as criteria to expose what we take to be his 'mistaken' belief? We *might* declare the person crazy if they persisted, but we could not declare them mistaken.

Morawetz (1978) draws on Wittgenstein's (1969) discussion of the nature of empirical propositions to gain an understanding of Wittgenstein's references to 'mental disturbance'. Wittgenstein held that not all empirical propositions are testable. There are propositions which take the form of an empirical question about which we cannot be mistaken. Some empirical propositions are not ordinarily tested and those who do seem to question these types of propositions might be candidates for the ascription of 'mental disturbance'. Empirical propositions take the form of an hypothesis which are testable against experience. However some empirical propositions are not testable and are to be contrasted against genuine hypotheses.[12]

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[12] Wittgenstein mentions that he is inclined to 'fight windmills' in the expression of this idea. It does seem odd to suggest that empirical propositions are not testable given the meaning of the term empirical. Nevertheless the point is made clear in the context of the argument.

Consider the proposition, "The bathroom mirror will accurately reflect my image". Wittgenstein would deny that this is an empirical proposition. But it is conceivable that the mirror could twist, break, steam-up, or get dirty so that it does not reflect an accurate image. Surely then the statement, "The bathroom mirror will accurately reflect my image" is an empirical proposition; the proposition can be true or false and assessed by experience. Morawetz explains three reasons for Wittgenstein's claim. First, the proposition is not a genuine hypothesis because, "hypotheses are intentionally offered to account for disparate experiences and tested by new experience." (Morawetz, 1978 p. 39). Second, and related to the above, the proposition is hardly worth testing. We are not so vain as to wonder about the accuracy of a mirror in everyday life, but might be moved to question the accuracy of a mirror when searching the galaxy through a telescope. It is the circumstances which surround a proposition which make it a genuine hypothesis rather than a matter of everyday life. It is the context surrounding the employment of a proposition that makes a proposition interesting. Consider:

> What I am aiming at is also found in the difference between the casual observation "I know that that's a...", as it might be used in everyday life, and the same utterance when a philosopher makes it. (C. §406).

Wittgenstein's assertions here are similar to those which are argued for in Chapter Seven concerning the difference of a term used in everyday life and in psychology. The contexts which surround the use of a term in psychology and those used in everyday life are different.

Third, and most important, in everyday circumstances the accuracy of my bathroom mirror is not a matter for testing but matter held fast in testing other propositions. The certainty that accompanies recognition of myself in the mirror is determined by my not doubting the accuracy of the mirror, it is, as it were, held fast in connection with all my other beliefs. I do not test the accuracy of the mirror to gain recognition of my image but I might recognise my image by the use of a mirror. Wittgenstein uses a different example to make the same point. He held that one does not determine one's own name by reading the name addressed on the letters in one's mailbox. However we determine whether the letters in our mailbox are our own by reading the name addressed on the letters.

Nevertheless, it is easy to imagine that I can awake one morning with no memory of who I am (the amnesia might be caused by some drug or a blow to the head) and like a detective searching for clues to piece together a crime, I might stare into the mirror only to see a stranger's face and wonder about the accuracy of the mirror. I might resort to reading my addressed letters to at least gain an impression of who I am. Clearly a context can change so that what seems like a matter which is held fast in the testing of other propositions becomes the subject of testing itself. Whether an hypothesis is a genuine empirical proposition is determined by the context in which it is used and its intended purpose. Nevertheless we still confront the problem that it seems that any 'non-empirical' proposition, what Morawetz terms 'methodological propositions' (A notion he gets from Wittgenstein which can be replaced with the notion of 'grammatical propositions'), can be turned into a genuine hypothesis given imaginable circumstances (a point which I will return to).

The point to get clear is that some propositions are held fast within a language-game and are essentially untested and untestable. What counts as an empirical proposition must be considered against the background in which it is applied. To test anything requires a background from which the testing is intelligible. There are several qualifications to this conclusion which will be developed in Chapters Five and Six. What should be clear from Chapter One is that Wittgenstein would reject the idea that the principles of logic form the background from which all other things can be assessed. Most important is the notion that, on Wittgenstein's view, some empirical propositions cannot be tested, we cannot be mistaken about them, they are simply part of our practices and form the background from which other things are assessed.

Throughout *On Certainty* Wittgenstein mentions conditions in which we might give an ascription of madness, insanity, or 'mental disturbance'.(C. §71, §73, §155, §271, §223, §420). Morawetz draws on Wittgenstein's presented distinction between a mistake and a mental disturbance. As mentioned previously, there are some situations in which a proposition has the form in which it is unintelligible because we cannot conceive of any possible mistake that could be made by the speaker or there are no grounds for which a mistake is possible. In the case where an amputee complains of a 'phantom limb' we can anticipate and correct the mistake: there are grounds for the mistake and evidence which proves the mistaken person's error. But in the case of the normal person who claims not to have a hand,

when looking at his own hand, we, "cannot understand the relation of the speaker to his error."(Morawetz, 1978 p. 40). Furthermore, we do not know what would be a test to prove this person's error—for it is not a genuine error at all.

Morawetz concludes that when Wittgenstein uses the concept of mental disturbance he indicates that the person has some defect (p. 42). This seems to be in line with Coulter's claim. Wittgenstein's purpose was not to expose the nature of the concept of mental disturbance beyond the insight that some statements made by individuals which promote disagreement are not mistakes, because they are untestable and nothing is available to either understand or expose the mistake. We are left guessing what Wittgenstein would truly characterise as mental disturbance. It is important to realise that Wittgenstein uses these terms collectively to indicate the unintelligibility of a claim or action; his purpose was to identify the grammar of statements surrounding the use of terms like "I know that's a...." and his use of terms like 'mental disturbance' are all related to that task .

Morawetz, by relying on the distinction between testable hypotheses (empirical propositions) and non-testable hypotheses (methodological propositions), asks the question: "Can mental disturbance be manifest by the denial of what I have called "methodological propositions", for example, a denial that objects exist or that they continue in existence unperceived?" (1978 p. 42). However Morawetz does not answer his own question, (nor could he without changing the purpose of his investigation) instead he offers us the useful observation that: "Such claims may, diagnostically, be important metaphors for the patients self-conception or self-orientation to the world. But it is not clear that they are, except in an attenuated sense, beliefs or claims at all."(1978 p. 42). The second claim will be addressed shortly.

It is necessary to examine Morawetz's first claim to attack Coulter's conception of insanity. The observation that the insane do not hold genuine beliefs or make genuine claims will be explained in contrast to Coulter's account of insanity. At first sight Morawetz might seem to support Coulter's claim that the insane operate, 'outside our system of verification', since Morawetz presents the view that 'methodological propositions' like, "This is a hand"(when looking at a hand) seem indubitable, roughly, because they are held fast within our social practice.

But to interpret Morawetz in this way is to offend against the delicate way he presents his question and misrepresents his contribution to the interpretation of Wittgenstein.

Methodological Propositions

Morawetz declares that 'mental disturbance' might be indicated by denying "methodological propositions". A methodological proposition is contrasted with an empirical proposition. We can be mistaken about an empirical proposition but because 'methodological propositions' form part of the background upon which our beliefs and claims are made they cannot be doubted, they do not obtain certainty, but in normal circumstances doubt is excluded as unintelligible, which makes the ascription of a mistake to the person who denies the methodological proposition equally unintelligible.

Can an ascription of insanity be given as the result of the denial of 'methodological propositions'? Of course! But the denial of a proposition like, "I have no reflection in a mirror", is not in itself indicative of insanity. Consider the case of a patient described by Kolb (1968 p. 379-380, cited in Szasz 1987, p. 285) where a 'typical catatonic schizophrenic' claimed that someone was after him and blaming him for the death of another man. He claimed he had been poisoned. His behaviour was unmanageable, he would break into fits of laughter for no apparent reason and would shout and remain noisy for periods of time. Eventually he was committed. This 'insane' person had symptoms which were verifiable; his poisoning could be tested and his supposed harassment observed. The claim 'I have been poisoned' is a matter for tesing not the denial of a methodological proposition. But to further complicate this case the man claimed to have visions but would not describe them to anyone.

The claim to have had visions might be considered in reference to Morawetz's question. If the man observed things which were such that we could not say he was simply mistaken or offer some other explanation for his behaviour, such as the taking of hallucinogenic drugs, then we would, as Morawetz's declares, not understand the "relation between the person and his error"(p. 40) (Although it is not clear that one can make an 'error' about a 'methodological proposition'—see below). But this does not characterise insanity. What is clear is that the person who hallucinated (without the other symptoms) would be unintelligible (This is poorly

expressed, the behaviour would be intelligible as an hallucination, but the proposition *per se* would be unintelligible). But surely, in the above case, other things are important, such as his behaviour and feelings of persecution, which are not the denial of 'methodological propositions' in the way Morawetz describes. Such things surround the ascription of insanity and cannot be ignored. Thus, while we *might* label someone insane because they deny methodological propositions it is not an observation which gets us any closer to a theoretical understanding of the concept of insanity.

Morawetz might seem to offer little help in exposing Coulter's error. Nevertheless, despite Morawetz's somewhat weak attempt to offer an account of mental disturbance he does point us in the right direction. The denial of a methodological proposition leads to a person being unintelligible. It is necessary to understand the conditions in which a statement is unintelligible—although it might seem obvious already given the conditions offered in Chapter Two. Nevertheless by gaining a clear grasp of what Wittgenstein had to say about such matters it is possible to clearly see how Coulter goes wrong, and how to clear this type of confusion.

Shared Rules and Social Consensus

Throughout chapters Two and Three the idea was presented that the relation between a rule and its extension is internal. To understand a rule is to know what accords and conflicts with that rule (Chapter Two). Social agreement is not a necessary requirement for the formation of rules (Chapter Three). To understand a rule is to know what accords and conflicts with the rule, nothing mediates between a rule and its extension. There is no need to place anything between a rule and its extension. For an individual to be intelligible, or have a language, he must participate in a practice. To communicate effectively he must share a practice with other individuals. To communicate then it must be possible to share a practice; in principle any practice is shareable by virtue of the fact that it is independent of the individual. The private language argument (described in Chapter Three) shows the unintelligibility of an unshareable practice. The 'rules' 'followed' in a genuine private language are logically private and unshareable and hence are not rules at all.

The fact that we do share a language and communicate indicates that we share common practices. However, Baker and Hacker (1985) explain that, "painting the frame on to the canvas."(p. 234), including normality conditions or the background on which a language-game is played into an explanation of the language-game, is the result of multiple confusions about Wittgenstein's arguments relating to common agreement in the application of concepts and definitions. There are several features of our shared practices which are often included, mistakenly, in our explanations of the intelligibility of our communication or the unintelligibility of communications with other things (Humans, martians or animals) that need to be explained.

The important idea that must be preserved is that the relation between a rule and what accords with a rule is an internal relation. The fact that we have common agreement over what accords with a rule does not make that agreement part of the explanation of what the correct application of a rule consists of. To put common agreement into an explanation of what it is for a rule to be correct misrepresents Wittgenstein's arguments and leads to the confusions detailed in Chapter Three.

Coulter asserts that community consensus forms the basis from which we can describe legitimate doubting. 'Correct' perceptions and 'legitimate' doubting are determined by societal agreement. It is by contrast to community standards that the insane become candidates for the the ascription of insanity. The standards shared by the community provide the basis for the correct application of a rule. But Coulter gets the Wittgensteinian point completely backwards. Coulter's claim that we form shared agreement on what counts as legitimate doubting is addressed by Wittgenstein on the very first page of *On certainty* :

> From it seeming to me—or to everyone—to be so, it doesn't follow that it is so.
> What we can ask is whether it makes sense to doubt it. (C. §2).

and again at C. §289:

> "We are quite sure of it" does not mean just that every single person is certain of it, but that we belong to a community which is bound together by science and education.

What makes an instance of a shared rule 'correct', or in accord with the rule, is not that we all agree on its application and misapplication but the

fact that it is a shared rule at all requires that we agree on the criteria for its application. Science and education are systems of shared rules (each has a 'grammar') and our certainty and ability to doubt is contained within those systems. Since we share the grammar we share the certainty derived from that grammar. The point is subtle and difficult to grasp but essential to expose Coulter's mistake, and the mistake of social constructionism generally.

To have a shared rule is to agree on what accords with a rule. We agree that we stop at red traffic lights and go on green lights but our agreement does not make the criteria for the rule 'correct'. To know a rule is to know what accords and conflicts with a rule. To know the rule, 'Stop at a red light' is to know that not stopping at a red light is breaking the rule and stopping is in accord with the rule. Coulter's interpretation of Wittgenstein's argument suggests that what determines whether one knows how to accord with the rule is socially determined: I know that claiming a mirror does not reflect my image is absurd because others inform me of the norms surrounding the correctness of my statements. For example, Biologists inform each other of the correct referent (criterion) of the use of the word 'stamen'. Thus only biologists, or someone similarly trained, *knows* the referent (criterion) of the word 'stamen'. But if the internal relation between a rule and its extension is preserved then to understand a rule at all is to know what accords and conflicts with that rule (Chapter Two). An individual who knows the road rules will know that stopping at a red light is correct. The fact that others would agree with him is irrelevant. In the same way a neonate Crusoe can know what is that correct application of a rule, an individual in society knows what is in accord with a rule and what is not *if he knows the rule.* And to be a rule at all requires a practice in which there is a criterion for the application of the rule (see Chapter Three). But an individual who knows a *shared* rule knows the criteria for its correct application by virtue of knowing the rule, not because everyone else would agree with that criteria—they agree by virtue of sharing the rule.

If we did not have social agreement over traffic regulations chaos and disorder would intervene. It is true that shared understanding is necessary for shared practices. There are some preconditions to a shared understanding. It must be that we can all recognise red lights, know that they mean to stop, and that our ability or consensus does not change from one day to the next or at random intervals across a day. If it were the case

that any of these background preconditions did not obtain we would not be able to have shared rules at all. But the fact that the world is stable so that we see red light consistently, that physiologically nearly everyone can distinguish colours, and that by consensus we have all agree to stop at a red light does nothing to undermine the internal relation between a rule and its extension. To know the rules governing traffic behaviour is also to know the criteria concerning such things as traffic lights. The correct employment of these rules presupposes certain abilities and background preconditions. These features of our language-games are the *background* upon which the game is played. Wittgenstein referred to these 'preconditions' as a 'form of life'. Consider:

> "So you are saying that human agreement decides what is true and false?"—It is what human beings *say* is true and false; and they agree in the *language* they use. That is not agreement in opinions but in form of life. (PI §241).

But because the term 'form of life' is little understood the 'preconditions' will be dealt with individually.

Lewis Carroll exploits the stability that obtains in the natural world and the background preconditions which are necessary for the employment of our concepts to make nonsense by removing those preconditions in *Wonderland*. Our normal understanding of events and our descriptions are lost in a world of chaos and confusion. Consider Wittgenstein's remark:

> 'It is as if our concepts involved a scaffolding of facts.'
> That would presumably mean: If you imagine certain facts otherwise, describe them otherwise, than the what they are, then you can no longer imagine the application of certain concepts, because the rules for their application have no analogue in the new circumstances. (Z §350).

Lewis Carroll's 'nonsense' is obtained by removing the applicability of the rules for the use of words—removing facts, background conditions, or applying a rule in an inappropriate circumstance. We can understand the words, but not their application. Carroll manages to tease and torment us within his own created domain. It is the contrast between our application of terms and those which obtain in Carroll's nonsense that make the writing nonsense which is intelligible (In the same sense that a mistake is intelligible) in contrast to the nonsense produced by the babblings of a child.

Croquet is a game played according to certain rules. A wooden mallet is used to hit a ball through iron hoops in order to hit a peg. The course is set out and the winner is the first to complete the course. But in Wonderland the game of Croquet is obscured *almost* beyond recognition. Alice, talking to the now rather helpful Cheshire cat, points to some problems with the Wonderland version of 'Croquet':

> "I don't think they play at all fairly," Alice began, in rather a complaining tone, "and they all quarrel so dreadfully one ca'n't hear oneself speak—and they don't seem to have any rules in particular: at least, if there are, nobody attends to them—and you've no idea how confusing it is all the things being alive: for instance, there's the arch I've got to go through next walking at the other end of the ground—and I should have croqueted the Queen's hedgehog just now, only it ran away when it saw mine coming" (1971 p. 103).

Of course a game with no rules is not a game at all. But suppose the difficulty of the 'game' in which Alice is engaged is due to the creatures running around. The 'game' would not be a game of croquet because croquet contains the rules like, 'hitting the opposition ball is a rewarded by another turn'. We simply could not play croquet if the arches disappeared or the ball had a 'mind of its own'. Nevertheless, the rules of croquet do not include such conditions as, 'the arches will not run off or disappear'. These conditions are necessary preconditions to play the game of Croquet; without these preconditions it makes no sense that one can play Croquet; it would be like playing cricket with a basket ball.

Wittgenstein refers to a number of examples to make the same point. Baker and Hacker (1985 p. 229) identify three. First, if colours changed at random so that we could never see the same object as the same colour we would have no use for colour terms at all. Second, if whenever we placed the same object on a scale it grew or shrank in mass, we would have no use for scales, no need for measuring weight—There would be no 'weight' to measure: not because there would be, metaphysically, no 'weight' to measure but because the purpose of the task of measuring would have been lost. Third, our clocks generally agree within a certain range, if this agreement did not occur, the idea of measuring time would be empty. The consistency obtained in our measurements is related to the 'stability of the world' which facilitates the employment of measuring techniques but does not explain them or enter into explanations of why those techniques are 'correct'. To know the correct time is not to know that my watch normally

gives me the correct time; but the fact that my watch normally gives me the correct time enables me to know the correct time.

Misunderstanding the nature of our normative concepts can lead to many confusions. In psychology, for instance, there are those who claim to be able to raise the intelligence (not to be confused with IQ score) of individuals by educating them within certain programmes. How would we measure an increase? Intelligence tests are designed to identify a stable and fixed characteristic of the individual regardless of their education. There would be no point in creating a test for intelligence or designing the construct of intelligence if it fluctuated from one day to the next. To assess whether intelligence can be increased we cannot employ standard intelligence tests for they are designed to measure a stable characteristic of the individual. In order to say whether intelligence can be increased by some programme of training we would be required to change the concept and our ways of measuring the concept so that the concept allowed for a change through education. But now we would no longer be measuring an increase in the construct we first set out to assess. Programmes designed to promote intelligence cannot employ standard intelligence tests to assess their effectiveness. The usefulness of psychometric tests is derived from the preconditions which surround the formation of the development of psychological constructs. A claim that intelligence can be increased by some educational programme is not a debate about the validity of intelligence tests but a challenge to the nature of the psychological construct and the preconditions which are necessary for psychometric tests. The claim that "an increase in intelligence is possible through an educational programme" is nonsense because there is no longer any criteria to establish what an increase consists of; the idea of measuring the 'increase' has no application.

In the same way the stability of the natural world forms a background upon which our language-games are played, so does social consensus. The stability of the world, our shared discriminatory capacities and potentials, and belonging to a society all facilitate the building of conceptual structures, or grammars. In the same way that the rules of Croquet are built upon the presupposition that the arches will not run off, we build our shared rules on the presuppositions of our biological capacities and shared understanding of rules, amongst other things.

In our society we regulate the flow of road traffic by the use of traffic lights. But suppose that instead of the three lights, which are customary, we had

only one light which changed colour by the use of a coloured filter. Suppose also that half of the population were completely colour blind. Chaos and disorder would disrupt the regular flow of traffic. Half of the population would be incapable of determining whether they should go or not, *they could not follow the rule.* Similarly if our population could not agree that green means go and red means stop, if half the population stopped on green and the other half on red, then we would not have a regulation for traffic at all; chaos and disorder would intervene. It is a logical requirement of road regulations that we all agree on their application. Without agreement there would be no shared rule. However a traffic regulation is not made correct because we all agree on a particular rule; if we did not agree it would not be a rule at all—the purpose of traffic regulation would be lost.

We might like to say that someone is insane by virtue of the fact that we all agree that he displays symptoms which we declare to be representative of insanity, and that the ascription is correct because we all agree. Consider Wittgenstein's response to such a belief:

> *I*, L.W., believe, am sure, that my friend hasn't sawdust in his body or his head, even though I have no direct evidence of my senses to the contrary. I am sure, by reason of what has been said to me, of what I have read, and of my experience. To have doubts about it would seem to me madness—of course, this is also in agreement with other people; but *I* agree with them. (C. §281).

So despite Coulter's assurance that Wittgenstein endorses the view that we form a collective knowledge which seems to contrast the intelligible against the unintelligible we can see that Wittgenstein's point was more subtle. Shared rules provide the background for intelligible communication, but agreement over shared rules is not part of the explanation of intelligibility, and more interesting, unintelligibility in relation to the symptoms of insanity. The fact that we might all agree on what is intelligible does not make those things agreed upon 'correct' or 'adequate' in contrast to what is considered 'deviant' and 'insane'. Agreement over a rule is a precondition for employment of certain social rules; it is not a logical requirement of language use that we agree with others. The following sections explore this conclusion in greater detail.

Unintelligibility on Trial

Unintelligibility arises when there is a circumstance in which a rule is unshared or, as in the case of the genuine private language, the rule is unshareable. That there is the possibility of unshared rules (not unshareable rules) leads us to the possibility of having encounters with unintelligible persons. The difference between an unshared rule and one that is unshareable is the difference between a potentially intelligible language, or system of rules, and the genuine private language. A neonate Crusoe is potentially intelligible by virtue of the fact that he has a language based on practice which is external to him.(see Chapter Three, pp. 114-115).

We have seen that it is a mistake to consider that there is such a thing as a genuine 'private language'. Wittgenstein (1969) uses the ascriptions: 'mental disturbance', 'deranged', 'crazy', 'mad', 'out of his wits', and 'insane' to characterise those persons who, to use Morawetz's term, deny methodological propositions—those who are not mistaken, or in error, but are unintelligible. Wittgenstein slides out of a difficult situation by the use of these terms. If the private language is unintelligible (By virtue of being logically unshareable) and those who deny methodological propositions are 'unintelligible', then *perhaps*, to be consistent, Wittgenstein would need to suggest that 'mental disturbance' is a 'genuine private language'. Wittgenstein does not actually describe the private language as being 'unintelligible', Hacker (1986) does so:

> as long as the concepts of sensation or experience are conceived to be determined by a 'private' rule involving a 'private' sample, this is unintelligible. (p. 265).

And indirectly:

> The supposition of the intelligibility of a person's following such rules lies at the heart of idealism and solipsism. If Wittgenstein's argument is correct, the deep and ineradicable flaws of these philosophical pictures have at last been definitively brought to light.(p. 272).

If one continues with this interpretation of Wittgenstein's position one arrives at a impasse with regards to Wittgenstein's use of the terms 'madness' and the like in *On Certainty*. Suppose we accept that the genuine private linguist is 'unintelligible' to himself by virtue of not having any genuine rule for the application of his terms. Wittgenstein labels, at least

some of the time, those who deny methodological propositions 'mad' and by this it is meant that they are not mistaken, in error, and so on but are unintelligible. One might continue, the insane, on this line of reasoning, are insane because they do not have any genuine rules for the application of their terms, thus they are unintelligible. Alternatively, we can declare the insane person's assertions 'potentially intelligible' and declare Wittgenstein's use of his ascriptions of mental disturbance in *On Certainty* incomplete; he cannot say that someone who denies a methodological proposition is unintelligible. We might say that such a person is initially incomprehensible but not logically unintelligible. But if we are to regard the insane as genuinely unintelligible, without resorting to describing them as possessing a genuine private language, we must preserve the notion that they are following rules privately which cannot be shared. Is there any room for a conception of insanity within the conditions so far described by Wittgenstein's philosophy? It is significant that Wittgenstein does not describe the private language as simply unintelligible as Hacker does at convenience. But surely 'following rules privately which cannot be shared' is a 'private language' in the way Wittgenstein described (see Chapter Three). But this is not so for there is, at least, one other option which is left open. That is that the concept of insanity characterises those who break the rules laid down by a particular community.

For any rule there is the possibility of breaking that rule. If I made up my own rules privately, as a neonate Crusoe could possible do, then breaking my own rules carries, trivially, no social consequence. But shared rules carry with them commitments such as shared judgements over the criteria for the rule. We share what counts as for and against the rule. If we did not share agreement over rules, what counts for them, and against them, then there would be *no shared rule*. Depending on the function of the shared rule, breaking the rule will provoke various social consequences. Wearing green socks with a dinner suit probably will not induce much social reaction. But standing on the top of a building and declaring that one can fly without any mechanical apparatus will probably bring out the fire brigade and other emergency services. Morawetz identifies the significance of methodological propositions to our shared social practice by contrasting them to empirical propositions. It is the significance we impart to methodological propositions, the importance they play in our shared language-games, which tempts us to declare someone insane for using words in such a way as to deny the proposition. But, as was illustrated in

the case of the paranoid schizophrenic earlier, the denial of a methodological proposition does not in itself constitute a characterisation of the conceptual grounds for the ascription of insanity.

It has been argued that a person who is insane is unintelligible. To be unintelligible is to follow a rule privately: at least, following a private rule is sufficient to produce unintelligibility. Conversely, to be intelligible to one another we must share judgement over the criteria which accord with the shared rule. But private rules are potentially intelligible since if they are genuine rules then they can in principle be learnt by others. But to avoid calling the insane unintelligible by declaring them to possess a genuine private language—which is as we have seen a phantasmagoria of philosophy—it is suggested that the insane break rules. But by breaking rules it seems impossible, upon first impression, to be following a rule—even privately.

Suppose an individual who belongs to a particular community breaks the rule that:"We accurately see our image in the mirror" by asserting that "That image is not me" when looking into a mirror, or if the possibility that plastic surgery is considered, "I have no reflection", despite general agreement to the contrary. The individual who breaks the rule is also following a rule. An individual who knows the rule also (logically) knows what counts against the rule. Thus, by adopting what conflicts with the rule instead of what accords with the rule his statement is an instance of breaking the rule. The individual merely adopts the criteria which counts against a particular rule and refuses to accept the criteria which others accept. In doing so the individual is following a rule privately (individually) which is unshared and more importantly, if a society is to maintain its shared intelligible rule, it is also unshareable; but not logically unshareable—thus the difference between this description of insanity and a genuine private language. The society could (logically) adjust the shared practice to accord with that of the 'insane' individual. Therefore the requirements for unintelligibility are maintained without offending against the description of the 'private language' as being unintelligible.

The consequences of this conceptual difference between rules followed privately which are unshareable (but not logically unshareable) and Wittgenstein's description of the unintelligibility of the private language are of critical importance for further considerations of the concept of 'creativity', progress in science, and social change. There are wider

implications of regarding the ascription of insanity to characterise those who break the shared rules of a social practice. The notion of an autonomous individual developed in Chapter Three characterises all those who do not participate in a shared social practice because they engage in unshared practices. Within the broader category of autonomous individuals both the concepts of 'insanity' and 'creativity' are subsumed. But the concept of 'creativity' must be distinguished from the concept of 'insanity'—they have different uses—while the similarity between them preserved. The above argument characterises the concept 'insanity' to be correctly ascribed to those who stand independent of society in a way radically different from Coulter's view. The insane do not simply operate outside our community's shared practice. It is a requirement of the concept of insanity that the ascription is given to those who have been aware of the rules of our social practices. This sort of dependency extends to the creative. A person who changes our orientation to medicine and reveals a cure for cancer is creative. The anthropologist who finds a lost tribe who have the cure for cancer has made a discovery.[13] Both are noble achievements but the only the former is creative (This is examined again in later chapters). Of course, while there are similarities between the concepts of insanity and creativity revealed by examining the general notion of autonomous individuals there are also differences. We cannot regard the creative as simply breaking the rules of a shared social practice, although this might happen, since then the creative would be logically unintelligible (see below).

The concept of insanity can be understood as an individual's reaction against the shared rules of a society. In the same way a thief is one who breaks the rule 'thou shalt not steal' the insane break fundamental rules which bind a community. In a society where all property is communal there is no such thing as theft. The concept of 'theft' is tied to the concept of 'property'. But to have a community at all is to have shared rules. If insanity is considered as a reaction against shared rules it follows we could never rid ourselves of insanity without ridding ourselves of community. Wittgenstein was well aware that this obtains:

> If in the midst of life we are in death, so in sanity we are surrounded by madness. (RFM, IV, §53 p. 157).

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[13] If this seems unconvincing suppose that martians land and give us the cure for cancer—there would be no new discovery at all on the part of an explorer.

So by representing the concept of insanity as the breaking of fundamental rules which are unintelligible because they cannot be shared it is possible to understand that intelligible (sane) and unintelligible (in this sense, the insane) are two sides of the same coin. The notion of insanity is intimately tied to a community, a practice, or set of shared rules (which produce our notion of intelligibility). It is presumed that it is for this reason that Wittgenstein addresses the mad, crazy, and mentally disturbed, in *On Certainty*, where he discusses at length the qualities and requirements of shared practices.

In medieval times an individual could hardly believe that they had a micro-chip inserted into their brain by Soviet spies which projected their thoughts to all around them although it might have been possible to believe the same result occurred by the interference of a witch. The shared understanding of propositions which surround the terms 'micro-chip', and 'Soviet', were unavailable (They were not shared by any society in medieval times) and so the possibility of breaking these rules also does not obtain. Consequently the form that insanity takes is relative to the rules available (shared) in a particular society.

Wittgenstein discusses the intelligibility of unshared rules in reference to primitive tribes (Discussed at length in the next chapter). They, for instance, might suppose that the ghosts of their ancestors inhabit the living and talk to them to provide inspiration for ways of acting. Our society does not accept such explanations and therefore find the explanations of the tribespeoples' actions unintelligible. Perhaps we would even declare such explanations of actions as indications of madness since they explain all their actions with reference to ghosts speaking to them and such assertions are taken as being a symptom of schizophrenia (auditory hallucinations). But for a tribe it might form a part of their culture, religion, self-perception and so on. Their society shares this belief. In the primitive tribe it might be considered madness to suppose that the individual was responsible for their ways of acting since it is the ghosts which are responsible for all action. While we find the explanation unintelligible we could hardly declare the whole tribe insane. That this set of practices is contingently unshared (with us) makes it 'initially unintelligible', but it is possible for us to learn the practices and customs of other tribes—their language-games are not impenetrable and so are logically, at least, potentially intelligible (And open to rejection, see Chapter Five). But if tomorrow I read in the newspaper that an individual raised in our society is committed to a psychiatric institution,

after declaring that all his actions were really guided by the ghosts inside his head, I would not be surprised at all—the individual's explanation is unintelligible. The same action (The declarations about the ghosts) which lies 'beyond' our community's shared practices, since they are both contingently unshared, is in one case potentially intelligible and in the other, *prima facie*, not potentially intelligible. For it to become intelligible society would need to change its conception of auditory reports, responsibility, and so on, to be commensurate with that of the 'insane' person.

Surely the above examples endorse Coulter's account of the nature of insanity; insanity is relative to community standards. However, for Coulter, not only is the person from our community unintelligible, so are those from different cultures. Both a travelling tribe member, and the *bona fide* schizophrenic with auditory hallucinations, operate beyond our cultural practice. On Coulter's account someone, like Galileo, could be considered a candidate for the ascription of insanity for being ahead of their time since he, for a time, had, a 'different system of verification'. But more generally and most importantly, if a person is insane because they have a different system of verification which is outside our own then they are *potentially intelligible.* This would not only offend against our use of the term, because we suppose that insanity is represented by irrationality, unintelligibility, and so on, but it would also offend against Wittgenstein's philosophical dealings with unintelligibility in *On Certainty*, from which Coulter claims philosophical support. The reason why Coulter makes this mistake is because he is committed to the social constructionist doctrine which misrepresents Wittgenstein's arguments relating to shared rules and social agreement.

Fischer (1990) compounds confusion relating to the concept of insanity and its use within Wittgenstein's writing. Like Coulter (1973), Fischer regards the concept of insanity as representing those who lie beyond the standards of a shared practice but insists that:

> If we comprehend insanity as a changed grammar, as a changed picture of the world to which a coordinate form of life corresponds, then we can recognize the internal logic of lunacy. Also, the language of the lunatic and lunatic reality are related to each other recursively, so that the reality of the lunatic is as full of verification for him as ours is for us....Accordingly, the thinking of the lunatic is not wrong but different. (p. 283).

But Fischer fails to deal adequately with the notion and use of 'unintelligibility'. We cannot declare those who lie outside our system of verification 'insane'. It is tempting to follow Fischer in believing that something is revealed about the insane person's system of verification by virtue of it being potentially intelligible because it falls outside our system of verification. But then the concept of insanity drops out of the picture, we would no longer talking about the insane as Wittgenstein makes clear:

> What should we say if we found people who made judgments contrary to our logical propositions? What should we say if we found people who did not recognize our logical laws *a priori*, but arrived at them by a lengthy process of induction? Or if we even found people who did not recognize our laws of logic at all and who made logical propositions opposite to ours? He [Frege] says, "I should say 'Here we have a new kind of madness'—whereas the psychological logician could only say 'Here's a new kind of logic'. (LFM, XXI, p. 202).

Wittgenstein offers us two examples of practices which are contradictory to our own. The first concerns wood sellers who instead of selling wood according to the usual methods of calculating adopt the rule of measuring the length and breadth of a pile but not its height. "The rule is to pay according to the product of length and breadth"(LFM, p. 202). By adjusting the dimensions of the pile one is able to manipulate the price. The same amount of wood spread over a greater area of ground costs more according to the woodseller. Under this condition Wittgenstein comments that the Woodsellers might say "Well, he's buying more now, so he must pay more"(LFM, p. 202) and declares that: "We might call this a kind of logical madness. But there is nothing wrong with giving wood away. So what is wrong with this? We might say, "This is how they do it." (LFM, p. 202).

The second example makes the point more precisely. Different, and divergent, practices (Further examined in Chapter Six) remain initially unintelligible to us but are not logically impenetrable. Thus of people who operate beyond our system of mathematics, who divide nine by three and get four, we do not call mad, on Wittgenstein's account; "What should we then say? 'We cannot understand them.'"(LFM, p. 203). Thus we cannot on Wittgenstein's account declare someone mad for simply failing to understand their practice. Furthermore there is nothing wrong with their practice, save that it contradicts our own. Far from drawing the conclusion that both Coulter and Fischer draw, Wittgenstein regards it as an error to present different practices as being anything more than practices we do not

understand—Even if those practices contradict such things as logic which we are tempted to consider as basic to all our practices (as Frege considered see Chapter One pp. 16-24).

Social constructionists provide an attractive way of looking at psychological concepts. For the concept of insanity and many others, are necessarily social phenomenon, to be understood against a particular social background. But they make the mistake of placing the correctness of an ascription, or rule, in the hands of the community. The point, concerning the concept of insanity, is that without a community we could not make an ascription of insanity—It is not; 'a community makes an ascription of insanity'. The shared practices of a community do not prescribe the correctness of a rule they are constitutive of what counts as the rule in a particular circumstance.

A confusion which might arise is that of placing any causal components into this conceptual description of the the form of insanity. No claim has yet been made as to why insanity occurs. The claim that insanity cannot be removed from a community is a logical claim about the form of the concept not a causal claim about the impossibility of finding a cure to all forms of deviance (Not that I would expect one).

Consider Morawetz's second observation regarding the denial of methodological propositions: "...it is not clear that they are, except in an attenuated sense, beliefs or claims at all."(1978 p. 42). The insane produce symptoms, such as delusions and hallucinations, which appear to be systems of beliefs. But on the view presented, they do not produce a new system of verification, *pace* Coulter and Fischer, they break the rules of the system of verification which the rest of us share. It follows that hallucinations are not genuine belief claims since belief claims are what are shared by the rest of the community—remembering that to make a belief claim one requires that certain other propositions are held fast. This requirement is undermined in the case of the insane who, it is suggested, break those propositions which allow (Are logical preconditions for) the shared practice to make belief claims.

Morawetz's claim is correct in the sense that various other forms of systematised beliefs, say for example those of a foreign culture, may be unintelligible to us (That we fly to the moon and back in our dreams, C. §106), but are still belief claims. And we would not consider these beliefs representative of insanity simply because they are unintelligible—they are

potential intelligible and therefore not insane but simply different. Delusions, manifest in the denial of methodological propositions, may well be presented as belief claims, but in contrast to what is accepted by a community they are not belief claims—we can be mistaken about beliefs but not methodological propositions. The action of breaking a methodological proposition is unintelligible to the shared practice and furthermore not a genuine belief claim because it undermines the precondition that to make a belief claim a grammatical proposition must be held without doubt. But Morawetz's observation, even if it is accepted, does not help gain a clearer understanding of the concept of insanity since a methodological proposition can be denied and be presented as a genuine belief claim. So, for example, Galileo can claim that the earth moves as a genuine belief despite the fact that an overwhelming number of people in his time believed the complete opposite (The same idea was presented with regard to having amnesia and reading one's mail to find one's identity). Morawetz cannot characterise the concept of insanity by including the additional requirement that the denial of a methodological proposition must not be presented as a belief claim. It is possible to deny a methodological proposition and make a genuine belief claim without bringing the ascription of insanity, as Galileo achieved.

Metaphor, Analogy, and Nonsense:
When does the rule stretch to breaking point?

To contrast what might be described as 'mental disturbance' Wittgenstein introduces a notion of 'the reasonable man'. To be reasonable is to follow the shared rules of a social group without breaking the rules; to abide by community standards. But nothing said so far has suggested that because we have a shared rule we must abide by that rule. Nothing logically prevents me breaking a rule, I can deny any scientific fact. But as Wittgenstein remarks:

> Thus we should not call anybody reasonable who believed something despite of scientific evidence. (C. §324).

Within our culture we argue based on scientific evidence. For instance, we generally accept that the earth moves around the sun in an annual cycle, that the earth is round and that something called gravity keeps us from falling off. I would not take someone seriously if he asserted that the earth was centre of the universe around which all other things revolved, not

because I have special access to the scientific evidence, or even understand it, but because I believe the authority of textbooks which tell me that this claim is not so. The belief that the earth is the third planet in the heliocentric system is ingrained into the shared practice of science—it is reasonable to follow these sources. Nevertheless, there was a time when the remark, "The earth moves" was considered offensive to a set of community standards and beliefs—all evidence was thought to suggest otherwise. To suggest that the earth moves was considered the denial of what Morawetz would describe as a methodological proposition, an indubitable truth not subject to testing by experience, part of our whole system of assessing things, part of our 'form of life' (In Chapter Five this is referred to as a 'Form of representation').

But we do not always agree over the rule. And yet it has been suggested that we must agree on the application of the rule to be intelligible to one another and to declare the unintelligible mad. Galileo disagreed with the established tradition in the church that God, " ...laid the foundation of the earth, that it should not be removed for ever." (Psalm 104: cited in Gingerich 1982 p. 119). He clearly broke away from the established tradition by asserting that the Copernican system of the planets was indeed true. The Church tried to persuade Galileo to present his argument as hypothesis rather than fact (Gingerich 1982) but despite their efforts Galileo insisted that his observations proved the Copernican system.

Consider Gingerich's (1982) summary of Galileo's position:

> Galileo defended the Copernican system by a series of ingenious arguments, many of them based on his new telescopic observations. From a modern point of view Galileo's defence seems immediately compelling, but when he presented his ideas, there was as yet no observational proof of the new cosmology, and even he remarked that he could not admire those who adopted the heliocentric system in spite of the evidence of their senses. (p. 119).

But Galileo treated the proposition, 'the earth does not move' as an empirical proposition and his observations of the phases of Venus through his telescope provided the impetus for him make the claim as fact rather than hypothesis. Does that evidence produce grounds for changing the rule held in the seventeenth century, that the earth is the centre does not move and the planets revolve around the sun? Most importantly how does Galileo's assertion differ from those presented by the insane? If the belief,

held in the seventeenth century, that 'the earth does not move' accurately represents Morawetz's conception of a methodological proposition, it is not suggested that it does, then surely Morawetz would have to submit that Galileo was a candidate for the ascription of insanity. But what does this candidacy consist of? Wittgenstein is willing to declare that someone *might be* crazy for denying the certainty that accompanies a mathematical calculation (C. §217). But he is also willing to exclude a *prima facie* absurdity from the ascription given the context that one is philosophising (C. §467) despite the suggestion that, without any particular reason, the presentation of irrelevant material is indicative of insanity(C. §468). Surely, tomorrow, I can make the assertion: "the earth is flat and unmoving", perhaps in reference to a piece of land upon which I want to build. Nothing about the proposition *per se* makes it unintelligible.

So this Wittgensteinian approach seems to lose all its force. What good is it to suggest that there are undoubtable propositions (Methodological propositions) if in a different context, or across changing historical periods, what was once considered an indubitable truth, say that the earth does not move, becomes an empirical proposition, subject to doubt and testing like the most tentative theories for which we presently seek verification? Can I say that the denial of any proposition will be intelligible given some interpretation, perhaps based on some evidence not yet presented, as with the case with Galileo?

The objection to Wittgenstein's position is strong. Morawetz presents the argument differently:

> ...no *p* is such that one can think of all circumstances in which *p* might be relevant. If this is so, one can never be in a position to claim that there will be *no* circumstances in which *p* is dubitable. *P* may simply be such that the speaker cannot readily describe a context of dubitability. And not only this: I (as speaker) am not even entitled to claim with certainty that the *present* circumstances are not (for reasons which I fail to realize) the very ones in which *p* ought to be doubted. (p. 104).

If any proposition can become an empirical proposition given some context then it is possible that I can be mistaken about a particular claim. If all assertions can be considered mistaken, given some context, rather than unintelligible, then nothing really counts as unintelligible. Consequently, nothing would legitimately count as insanity. For some imaginable context will make any proposition intelligible. Those statements which seem to be

beyond doubt, unmistakable, like "This is a hand (When looking at my hand) are subject to doubt depending on the context. The result is that the concept of insanity, on this view, could not be used to refer to those who are unintelligible. Notwithstanding that if this argument is accepted we must reject Wittgenstein's account of doubt and certainty, we must also accept that nothing counts as an unintelligible proposition. Everything about this approach seems to fall apart.

A convenient summary of what has been presented and the problem is provided by Wolgast (1985):

> Wittgenstein puzzled over Moore's truisms because they were propositions whose certainty rested neither on evidence nor upon a grammatical ground. They appeared to fall between the traditional classes of empirical and *a priori*....they appear to be empirical yet play the role of a priori propositions; their position in our language is similar to *a priori* propositions, yet they are capable of change and one can imagine a language where their position is quite different. Thus they are like propositions which state contingent facts and express beliefs...What is the nature of these propositions then?... It is in answer to this question that Wittgenstein turns our attention away from the propositions and speaks instead of a form of life (p. 515).

A proposition like: "The earth moves" in the seventeenth century might be considered as the denial of what was then a methodological proposition. But the fact that nowadays we consider the opposite assertion: "The earth does move" a methodological proposition brings us a problem concerning what is and what is not intelligible to a particular community. To deny a methodological proposition is to behave in an unintelligible way. But in a different context or time the denial of the same proposition is not unintelligible. How is it possible to have the certainty about propositions such that we can make an ascription of insanity to those who deny them and accept that by some creative process our language-games change?

Consider Coulter's view:

> We constantly construct, affirm and enforce a collective authority intersubjectively. This anthropocentrism is expressed in the phrase: '*our* whole system of verification'. We sustain it; it does not sustain itself through us. But we cannot drop it at will and adopt something else in its place. It is humanly constructed and therefore conventional, but not arbitrary. (any more than our 'humaness' could be said to be arbitrary). When one of us does appear to jettison that system by believing something which

> we find wholly untenable, either because there are no grounds that could make sense to us as grounds for that belief, or because one cannot believe that on those grounds, or because there are reasonable, or 'good enough' grounds for believing the contrary, then we confront the possibility of tolerating more than one system of verification, or adequacy criteria, or sustaining ours to the detriment of the other. (p. 135).

What is it to jettison a system of verification? Did Copernicus jettison a system of verification when he rejected the Ptolemaic system of the movement of the planets? What is wrong with tolerating more than one system of verification?

Social constructionists might hold the context as fixed. If every statement depends on the context in which it is asserted for its intelligibility, then what is important is the context. Therefore we should study practices and the employment of language in those practices to assess the limits of intelligibility. But the anomaly for social constructionism is the fact that language-games change over time. It follows that from a social constructionist perspective it would be impossible to explain creativity without running into the errors similar to those which are present in Coulter's account of insanity.

We must return to the argument presented in Chapter Two when the suggestion that any rule can be justified on some interpretation was attacked. Wittgenstein is criticised by his imaginary interlocutor:

> "But how can a rule shew me what I have to do at this point? Whatever I do is, on some interpretation, in accord with the rule."— (PI §198).

And Wittgenstein's answer:

> That is not what we ought to say, but rather: any interpretation still hangs in the air along with what it interprets, and cannot give it support. Interpretations by themselves do not determine meaning. (PI §198).

And by way of reminder:

> "Then can whatever I do be brought into accord with the rule?"—
> Let me ask this: what has the expression of a rule—say a sign post—got to do with my actions? What sort of connexion is there here?—

> Well, perhaps this one: I have been trained to react to this sign in a particular way, and now I do so react to it.
>
> But that is only to give a causal connexion; to tell how it has come about that we now go by the sign-post; not what this going-by-the sign really consists in. On the contrary; I have further indicated that a person goes by a sign-post only in so far as there exists a regular use of sign-posts, a custom. (PI §198).

It has already been explained what rule-following consists of (see Chapter Two), and the end point was that rule-following required a practice. Now we seem to confront the possibility that shared customs and practices change across time and are open to various interpretations. Or a practice may not be shared or followed at all. The result is that the same arguments that Wittgenstein's imaginary interlocutor invokes can be presented here. The assertion that "I cannot see myself in the mirror" cannot be taken to be an indication of insanity, since on some interpretation it will make sense. Or, there is really no clear understanding of the concept of insanity, no one can be declared insane, since the concept of insanity can be variously interpreted across different cultures and times, so that in one culture a person is sane and in another insane.

It is most important to correctly grasp Wittgenstein's response: *Interpretations do not by themselves determine meaning*. (This has been examined in Chapter Two, p. 63). Wittgenstein punishes the suggestion that interpretations determine meaning, or the variability of interpretations makes meaning impossible:

> This was our paradox: no course of action could be determined by a rule, because every course of action can be made out to accord with a the rule. The answer was: if everything can be made out to accord with the rule, then it can also be made out to conflict with it. And so there would be neither accord nor conflict here. (PI. §201).

The suggestion that shared rules require certain preconditions, such as shared biological capacities, a stable world, and agreement over criteria has already been explained. Without general agreement there cannot be a shared rule. Those who wish to pursue the argument that any assertion can be interpreted as intelligible in some context undermine this requirement making shared rules impossible. Consequently, given the supposition that everything can be made intelligible upon some interpretation, an ascription of insanity would be impossible—everyone would be unintelligible to each another not only the 'insane'. If any interpretation of the rule is acceptable

then acceptance of the rule is irrelevant: there simply would be no shared rule. If any interpretation of the rule is acceptable then there is no point in having the rule at all.

Alice's Trap

Carroll explores the idea that some standard, a custom or convention, is necessary from which insanity can be assessed. Carroll plays with the concept that madness has no meaning in Wonderland and exposes the idea that any interpretation of a rule is intelligible is nonsense. Carroll's patent nonsense provides a convenient example to expose Coulter's latent nonsense. Alice asks the Cheshire cat how he knows that he is mad. The answer is clever:

> "To begin with", said the Cat, "a dog's not mad. You grant that?" (p. 79).
>
> "Well, then," the cat went on, "you see a dog growls when it's angry, and wags its tail when it's pleased. Now I growl when I'm pleased, and wag my tail when I'm angry. Therefore I'm mad." (p. 79).

Alice exposes the weakness in the otherwise perfectly valid argument. "I call it purring, not growling,' said Alice."(p. 79). The reply forces us to question who has the correct standard. For if the cat's conception of purring is accepted by Alice then she must at least concede that his argument is valid. But the Cat's reply to this is equally damaging to Alice's argument: "'Call it what you like," said the Cat." (p. 79). Alice has a dilemma for if she really does call the concept of 'purring' anything she likes then she has no way to assess whether the cat's argument is convincing. But the cat's argument is that by removing any common practice, or meaning, between the insane and the assessor (Himself and a dog or Alice) then he can be legitimately described as insane. Alice must reject his argument about insanity (else accept via the previous argument that she too is insane) but in order to do so she must accept that there is no common agreement between them on the concept of 'purring'—in doing so the Cat successfully tricks Alice into tacitly agreeing with his argument. Any objection to the Cat's argument will fall to the same reply. This trap is not easy to avoid. The way out is show that the trap is a illusion of grammar, part of the senselessness of Wonderland itself.

Wittgenstein's general strategy for overcoming a paradox was to expose the senselessness of the paradox (PI§ 125). Wittgenstein often offers the solution to such problems in ways which seem to support the idea that exposing a paradox is useful but this is an error. To expose something as paradoxical is to entertain nonsense—much like Alice does. To expose something as nonsense is an advance.

> "If my memory deceives me *here* it can deceive me everywhere." If I don't know *that*, how do I know if my words mean what I believe they mean?(C. §506).
>
> "If this deceives me, what does 'deceive' mean any more?"(C. §507).

If one were to doubt everything, or believe that nothing stands as a background for certainty then one could not be deceived. For my memory to deceive me there must be true memories, memories which I can rely on. If I do not know that I have true memories I cannot know that my memories can be deceived. Similarly, if I do not know that I have false memories the idea that my memory can deceive me is nonsense. The concept of deception has no meaning here. Thus the seemingly paradoxical situation, in which if one wishes to doubt everything one must have certainty, is not paradoxical but nonsensical.

Similarly with the concept of insanity, one must presuppose the sense of the concept, presuppose a practice of distinguishing between the insane and the sane, to employ it as the Cheshire cat does. His ability to determine his own madness is derived from the assertion that a dog's actions do not represent insanity. (An assertion which he does not allow Alice to question). But herein lies the nonsense of the seemingly paradoxical situation (If Alice agrees with the Cat's argument then she is mad, if she disagrees then she is also mad).

Suppose instead of encountering Alice the Cat meets a dog. The dog, as is common in Wonderland, questions the Cat, asking for some criterion on which to assess the Cat's madness (and her own). The Cat cannot employ his argument at all for he would defeat his purpose to call the dog sane and then assert the difference in practices makes himself mad. The very same difference applies to the dog. Either the Cat is mad, or the dog is mad, but not both—and more importantly, nothing stands as a criterion to distinguish which of the two creatures is mad.

While the Cat's definition of madness might apply to Alice, for she does have a different system of verification (what she calls purring the Cat calls growling), it could not be used to justify the assertion that "We are all mad here". Alice's acceptance of the Cat's criteria (the standard of the dog) is imported from a her 'above-ground' world—it does not belong to Wonderland (If she had not accepted this criterion from the start she would not have fallen into the trap). Whether Alice is insane then depends on the difference between her system of verification and the Cat's. But this is senseless for the difference is shared in exactly the same way as when a dog encounters the Cat. Nothing in Wonderland is available to determine the meaning of insanity—there is no practice of distinguishing the mad from the sane. For on the Cat's own argument everyone in Wonderland would have a different system of verification, there is therefore no shared rule, no one way of acting which represents insanity, for the application of the concept in Wonderland. Without a community, without shared rules it is impossible to give an ascription of insanity; without contrast to sanity, or what is intelligible, insanity has no meaning—there can be no criteria for the use of the term, no shared agreement as to what insanity means. If the concept of insanity is taken as simply being a 'different system of verification', as Coulter would have it, then it is senseless; there is no rule for the application of the concept.

Suppose all the inhabitants of Wonderland support the Cat's argument, they say collectively "We are all mad here" and declare Alice mad. Their reasoning (slightly simplified for emphasis) would, on the Cat's argument, be justified by the argument: If you are here you are the same as us (i.e mad) and to be mad you must be different from us. If insanity is represented as being 'outside' a system of verification, or a comparison between different systems of verification, then it is senseless. Nothing determines the application of the concept for a *difference between parties* is a *shared* phenomenon.

Conclusions

Coulter (1973) clearly has difficulty in explaining the relation between different systems of verification and insanity. Upon encountering a different system of verification, say a foreign tribe, we might encounter an initially incomprehensible set of beliefs. But Coulter cannot declare another

tribe insane—this would offend against the use of the word (I have argued that a tribe is potentially intelligible and an insane persons assertions are not. I presume from this argument it is clear that we could not really give an ascription of insanity to everyone in a different society)[14]. So Coulter fails to provide some criteria with which we can separate the initially incomprehensible from the unintelligible and insane. However, if we exclude this as an oversight there is still the problem of deciding why it is that an individual in society is declared insane on the basis of a difference in a system of verification because any difference is shared between the ascriber and the person labelled. Consider:

> Even a proposition like this one, that I am now living in England, has these two sides: it is not a mistake—but on the other hand, what do I know of England? Can't my judgement go all to pieces?
> Would it not be possible that people came into my room and declared the opposite?—even gave me proofs of it, so that I suddenly stood there like a madman alone among people who were all normal, or a normal person alone among madmen? Might I not then suffer doubts about what present seems the furtherest remove from doubt?(C. §420).

Wittgenstein alludes to the fact that any proposition which might seem to be a methodological proposition can be turned into an empirical proposition and then be subject to doubt. Because Coulter requires a fixed and stable context in which everything can be assessed, an unchanging society from which to gain a 'correct' interpretation, he cannot account for a change in the social context and cannot provide an account of insanity (Similar reasoning would exclude an account of creativity). Notice that in his example Wittgenstein does not declare himself mad nor the other people that offer proofs. The denial of a methodological proposition is in itself an insufficient description of the nature of the concept of insanity (Morawetz makes this error). And further, a difference in beliefs, even the denial of a methodological proposition, cannot be used as an indication of who is mad. There is no rule, and therefore no criterion, for the application of the concept of insanity taken in the way Coulter suggests. Without any

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[14] I can imagine a cult group with individuals combined by common beliefs who break away from society being giving a similar ascription to an individual we declare insane. The argument rests on the insane following a rule privately which is unintelligible to a society. It is conceivable that a social group can operate in the same way–but not a social group that we first encounter because they have not had access to understanding our rules in order to break them.

rule for its application the description of its use has no use and is therefore nonsense.

Clearly the 'terrain' is not covered by declaring the insane to be those who adopt a different system of verification or fall outside our own. Coulter's idea makes sense only given an unchanging context in which can appeal to community standards which are fixed and unchanging. But Wittgenstein's insights go far beyond an appeal to a paradigmatic way of behaving. Wittgenstein was well aware of ever-changing nature of our language and practices. Coulter misinterprets Wittgenstein's points about the role of agreement and the nature of certainty and doubt. However, we still have no clear indication as to how a practice, or a form of life, provides us with a position in which some things are certain and some subject to doubt against this changing background in which what was once certain becomes dubitable. It is with this problem in mind that the following discussion of the concept of creativity is provided. By taking Morawetz's suggestion seriously, that the insane do not produce genuine belief claims, and following Wolgast's guidance that Wittgenstein leads us away from discussing the form of the propositions, drawing our attention instead to a form of life, we can resolve the issues that have confused Coulter's account of the nature of insanity and provide a description of the terrain upon which both the ascriptions of insanity and creativity are given.

Speculation about the rules for our ascription of insanity is unnecessary to the purpose of this thesis. It would be an exhausting, and pointless, task to survey all the possible rules for the ascription of insanity. In limited contexts some study is undertaken to reveal what characteristics of the insane are important to gain a legal ascription of insanity. We are fooled by the common characteristics of our communities into believing that insanity is a universal ascription not relative to the community or context and this is complicated by the nature of the concept itself; for to have a community is to have the potential to break rules in ways which promote the ascription of deviance of some form, be it insanity or 'upsetting the Gods'.

The idea that the insane 'break rules' is a conceptual tool. It is not an observation. The charge of triviality might be levelled against this approach by those who would require a distinction to be drawn between insanity and other forms of deviance such as crime. But declaring that the insane break the rules of shared social practice does not offer a general theory of the

nature of the insanity ascription (Chapters Seven and Eight provide the rationale for this). Taken as an observation the argument is as pointless as the suggestion that criminals are those who break the law.

With the descriptions of logically unshareable language games, unshared language-games, and unshareable language games complete, it is possible to describe the form of the concept of creativity. It should be considered in much the same way that insanity is considered: the creative, and here what is meant by creative is the scientifically creative, break shared rules. The conceptual difference between the insane and the creative is that the insane follow unshareable rules (If the community is to maintain its shared rule it must reject the one which the insane person promotes—the 'if' is not a contingent feature of a society but a necessary precondition), whereas the creative follow initially unshared rules which are subsequently adopted by the community. The difference between the insane and the creative from this perspective is obvious. The creative break rules but become intelligible. They are intelligible because society adjusts its practices in favour of those the creative individual presents. Thus the creative should be understood in relation to the effect they have on our shared practices; they promote change in our shared practices in contrast to the insane that cannot logically be declared insane if they promoted a shift in a shared social practice so that their contingently unshared rule was shared.

Chapter Five

Reconciling Method and Problem

Cora Diamond (1989) in a series of essays dedicated to Rush Rhees remembers his remark, "Wittgenstein wanted the two books read together. But this has not helped people to see that the investigations is a book on the philosophy of logic; it has led many... to read the Tractatus as a theory of knowledge." (p. 37 Rhees, cited in Diamond, 1989 p. 13). Psychologists, and philosophers of psychology, are inclined to forget that Wittgenstein was interested in the foundations of logic and mathematics. Wittgenstein saw a parallel with his investigation into the nature of mathematics *and* that which delves into the nature of psychological investigation (i.e Part II Philosophical Investigations). Wittgenstein did of course offer critical investigation into many psychological concerns but this did not necessarily contain anything resembling that which Harré (1989) calls a 'Wittgensteinian programme'; in the same way Wittgenstein did not offer a new programme for mathematics. The idea that Wittgenstein did not 'discard' the practices of mathematics is important (crucial), when taken along with the view that there is some parallel between psychology and mathematics, if Wittgenstein's thoughts on psychology are not to be regarded as "nihilistic" or "pessimistic" as Williams (1985) believes.

Conceptual confusion operates within psychology. It has been shown that cognitive scientists confuse the nature of psychological terms, treating them as causal, or functional, properties of the 'mind' or brain. Social constructionists fail to present the Wittgensteinian arguments correctly and subsequently present accounts of psychological terms, like insanity, in ways which Wittgenstein would argue against. To get between these two misguided accounts of psychological terms, assuming that there is some value in the attempt to find this mysterious parallel which Wittgenstein refers to between the investigation of psychological concepts and those of

mathematics, the connection between the concepts of insanity and creativity developed in Chapter Four will be assumed.

Three examples will guide this plunge into the obscure relation between mathematics and psychology. The first concerns Szasz's (1987) insistence that feigned insanity is the same as real insanity and this provides good reason to disregard the efforts of psychiatry to identify and cure 'imaginary illnesses'. Second, Schachter's (1971) empirical research on the physiological correlates of psychopathy is offered as an example of how experimental research cannot resolve conceptual confusion and merely perpetuates its destructive effect on psychological investigation. Third, research on the incidence of insanity among the creative is presented which can be placed within a certain understanding of creativity—in particular one which is in accord with the grammatical relation the concept of creativity has with the concept of insanity. It might seem as if these examples could only be given a relation by some complicated theory. Nevertheless it is Wittgenstein's analysis which provides tracks upon which we now run. These concerns serve only as illustration to the wider implications of his thought.

Criteria, Grammar, and Method.

(a) Confusion in Psychiatry

Rosenhan (1972) sent eight subjects, mainly his students, to psychiatric institutions with the instructions to feign insanity to gain admission and then to act sane in order to obtain release. To achieve the task of gaining admission the subjects reported to psychiatrists that they were suffering auditory hallucinations. All eight were admitted, all but one with the diagnosis of schizophrenia. None of the subjects were suspected as malingerers by the mental health professionals within the institutions despite the real patients in the institutions recognising a difference between the behaviour of these pseudo-patients and themselves. Eventually all the subjects were released, but in all cases with the status of being 'in remission'.

Szasz (1987) asserts that all that Rosenhan has established is that it is easy to deceive people. He further points out that:

> Usually the simulation of schizophrenia is simply the prodromal phase of genuine illness....The majority of such patients will be

> suffering from early stages of genuine psychosis and should be managed accordingly (Hay, cited in Szasz, 1987 p.172).

Szasz (1987) argues that 'insanity' is a role. Playing the role of Hamlet (His example) is no different from the feigning the role of Hamlet. Faking insanity is no different from being insane since insanity is not literally a thing to be copied. There can be a Picasso painting and copy, but the word 'insanity' denotes something fundamentally different from those which 'A Picasso' denote. Knowing those rules to break in order to be labelled insane are obvious. Anyone with this intention can pick up a copy of the DSM-III-R[15] and become as expert as a schoolboy fooling his mother, at fooling the clinicians. But does deception operate here?

Szasz suggests that there is no such thing as feigned insanity. Yet Rosenhan offers an opposite position which Szasz dismisses with the idea that, "To me it proves only that it is easy to deceive people, especially when they want to be deceived." (1987 p. 183). But on Szasz's conception of insanity it was not possible that Rosenhan's students *deceived* the psychiatrists since insanity is something which cannot be feigned. Szasz rejects Rosenhan's evidence at the expense of contradicting his own claim that 'feigned insanity is meaningless'.

Szasz's contradiction is indicative of conceptual confusion. Szasz offers the view that insanity is simply a role. Conceptualised as a role insanity does not require verification of feigned or real insanity. Szasz fits the term 'insanity' into a grammar in which 'deception' has no place. The practice of acting, or playing a role, is simply deception of one form or another. The attractiveness of Szasz's position comes from the nonsensical position that you cannot deceive another that you are deceiving them.

So what role does deception play in our language game relating to first person psychological utterances? The grammatical clarification of the concept of insanity in Chapter Four does not differentiate between those who deceive and those who do not. What good is such a clarification if it has no impact on the application of psychology or psychiatry? In a different context Fogelin (1987) points out:

> Being angry is not just a matter of saying "I am angry," for, obviously one can say this without being angry. Even if we

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15 American Psychiatric Association (1987) Diagnostic and Statistical manual of mental disorders (3rd edition) Washington: American Psychiatric Association.

> extend the pattern of behaviour to include the rich repertoire of angry behaviour (anger-behaviour), we can imagine this taking place on a stage and therefore not suppose that we are dealing with genuine anger. These facts reinforce the idea that the behaviour of an angry person is merely the outward manifestation of his anger within, for, without an appeal to such an underlying cause, how can we distinguish between behaviour that genuinely expresses anger from behaviour that only seems to express anger? (p. 189).

It is often the case in psychiatry that mental illness is defined in terms of physiological conditions; treatments are designed on this basis with certain diagnoses indicating certain treatment schedules. Psychiatric diagnosis does not indicate a cause to the mental condition but relies on there being a cause in order to remove the problem of having to justify a diagnosis which makes no distinction between those who feign insanity or those who are truly insane. The diagnosis of schizophrenia does not indicate a cause for the condition—unlike the diagnosis of a broken leg which offers the cause, (The fact that the leg is broken) of the signs and symptoms the patient experiences (pain, swelling, lack of mobility, etc). If the view that psychiatrists hold is rejected: that some causal process distinguishes madness from feigned madness (since this contradicts the arguments of chapters Two, Three and Four), and Szasz's argument that madness cannot be distinguished from feigned madness is dismissed as nonsensical or contradictory, then what criterion distinguishes insanity and feigned insanity?

Fogelin (1987 p. 189-190) continues:

> Wittgenstein's answer to this question, and to all questions of this kind, is that we do not draw such a distinction by going behind the phenomena, but instead, we place the phenomena in a broader setting. That the behaviour takes place on a stage does not set a problem for drawing this distinction between real and feigned anger, for, as everyone knows, this is precisely the kind of fact we appeal to in deciding whether a person is angry or not.

But this answer is unsatisfactory for it makes it seem that in order to distinguish real anger from feigned anger, or real madness from feigned madness, all one requires is the knowledge, derived from some broader setting somehow, that someone is not acting in a deceptive way. Even if Fogelin's answer is accepted it seems that he avoids the problem that Szasz identifies. The problem is precisely that psychiatrists do not use the word 'schizophrenia' in a way which distinguishes feigned symptoms from real

symptoms. Given the argument that psychiatrists *cannot* distinguish between feigned insanity and real insanity by any other means (say some causal factor) then it would appear Szasz's argument stands: the word 'insanity' is not used in such a way that there is a distinction between real and feigned insanity. Therefore (simply put) 'insanity' does not refer to a real thing. Fogelin points out that we can distinguish between real and feigned anger by attending to the context in which the behaviour is expressed. Szasz's argument is that there is no context in which insanity can be distinguished from feigned insanity. Szasz maintains that psychiatrists conceptualise insanity wrongly, it should be conceptualised as a role.

What Szasz points out is an *inability* on the part of psychiatrists not a *misuse* of grammar. The criteria for assertions like, "He is angry, in pain, or insane" specify the use of these terms and do not determine the meaning of the terms (Chapter Four, pp. 156-158). Being insane obviously does not mean 'hears voices inside his head' since Rosenhan (1972) demonstrates correctly, although trivially, *pace* Szasz (1987), that insanity can be feigned, or at least that it is possible to lie about certain criteria for the ascription of schizophrenia. Hacker (1986) argues:

> ..although A's clutching his swollen jaw and groaning are criteria for A's having toothache, 'A has toothache' does not mean 'A clutches his jaw and groans'. Rather specifying the verifying criteria does not give the meaning of the proposition but determines the meaning, i.e the use or grammar, of the proposition in question. (p. 308).

But Hacker's explanation is unsatisfactory. Since it has been argued that the relationship between a rule and its criteria is internal it would seem necessary to suppose that a person who applies the ascription of: 'A has a toothache' in the circumstance that 'A clutches his swollen jaw and groans', has the correct employment (Given that clutching a swollen jaw and groaning are correct indications of toothache) of this ascription and therefore *understands* the meaning of the term. The general point here is that specifying the criteria in relation to some rule demonstrates only one's understanding of that rule and does not determine whether one's use is in fact correct. One might be duped by a con-artist, or misdiagnose a condition. Relatedly, widespread disagreement over the criteria for a rule, or way of acting, for example giving the ascription of insanity, represents disagreements over the *shared* definition of terms—disagreements in understanding of the phenomena.

The agreed upon criteria for the diagnostic label of schizophrenia are laid down in the DSM-III-R. Whether the labels 'insane', or 'schizophrenic', are used correctly is determined by the conventions adopted by psychiatrists and others. Whether those conventions are correct, in some deep sense, is not examined by empirical evidence, like Rosenhan's experiment, nor can they removed or replaced by adopting a new mythology (set of conventions) like the one's Szasz proposes.

Wittgenstein examined those propositions which seem immutable, those of mathematics, and logic, which seem to remove the confusion which is introduced by accepting that our conventions change over time. Mathematicians do not argue over basic calculations they all agree without argument to a method of doing addition (PI§ 240). It is by comparison to these seemingly immutable propositions that it will be clear why the conventions of psychiatry are difficult to remove and that they are conventions not susceptible to evidential challenge.

Wittgenstein distinguishes between rules of grammar and empirical propositions by testing whether the negation of the proposition makes sense (i.e has a use). In Chapter Three it was claimed that a proposition of mathematics like 2+2=4 makes sense whereas ~(2+2=4) (It is not the case that 2+2=4) makes no sense. Similarly 2+3=4 is a false proposition whereas $2+3\neq4$ is true. Wittgenstein argued that we are confused by a similarity in the form of these propositions and are tempted to suppose that the false propositions of mathematics are still mathematical propositions. False propositions serve no role in mathematics, they have no use, and are therefore not mathematical propositions at all. The grammar of mathematics allows certain propositions and excludes others, which is why we can call 2+3=4 false—it is really nonsense. Similarly the false notion that the internal angles of a triangle add to 130° has no use and is therefore nonsense. But a statement like, "There is a pyramid" can be true or false. Empirical propositions are unlike grammatical truths in that their negation, (e.g That is not a pyramid) makes sense: has a use—to distinguish between pyramids and other objects. Similarly, as was indicated in Chapter Four, it makes no sense to deny a methodological proposition; the denial has no use in the conventional grammar of society—that one might demonstrate a use, as Galileo did, is always a possibility. Methodological propositions and the grammatical rules of mathematics share the feature that their negations have no use. There are no criteria or rules for the application of the negation of these propositions, for grammatical

propositions are indeed *rules* set down in a practice to describe the employment of other concepts.

The rule set down in the practice of psychiatry that (loosely) 'hearing voices inside one's head is an indication of madness' can be described as a grammatical rule. The claim, "Rosenhan hears voices inside his head" is an empirical proposition which is either true or false. The first proposition licenses the ascription of madness given certain contingent matters of fact. The second statement is a proposition about certain states of affairs. The claim, "It is not the case that hearing voices inside one's head is an indication of madness" would make no sense to a psychiatrist who adheres to the tradition that this is a common symptom of schizophrenia. The claim, "It is not the case that hearing voices inside one's head is an indication of madness" is not part of the grammar of psychiatric classification and like the claim, "The internal angles of a triangle sum to 130°" has no use and is therefore nonsensical. Whereas the claim, "Rosenhan does not hear voices inside his head" is perfectly acceptable. The fact that psychiatrists have difficulty in verifying the authenticity of reported symptoms does not undermine the set of rules, or practices, they adopt in giving a diagnosis. What Szasz points to, and Rosenhan confirms, is an *inability*, not a confused grammar at all. Szasz's characterisation of madness as a role is an attempt to offer another rule for the characterisation of madness, the usefulness of which has not been clearly demonstrated. (Szasz's conceptualisation and the traditional practice are in direct conflict—This type of conflict will be examined in the next chapter).

One might be sympathetic to Szasz's overall aim of elaborating the myths which comprise the practices of psychiatry. Some of those myths have been dealt with already: that psychological constructs point to some imaginary inner thing, as schizophrenia does to disease, or that psychological constructs point to entirely social constructed 'events': that schizophrenia is merely a problem of coping in society. Despite some sympathy with Szasz's position it is the wrong way to penetrate the misunderstandings offered by a grammar: in this case the grammar of ascribing mental illness.

(b) Experimental methods and conceptual confusion

> Turing thinks that he and I are using the word "experiment" in two different ways. But I want to show that this is wrong. That is to say, I think that if I could make myself quite clear, then Turing would give up saying that in mathematics we make experiments. If I could arrange in their proper order certain well-known facts, then it would become clear that Turing and I are not using the word "experiment" differently.
>
> You might say, "how is it possible that there should be a misunderstanding so very hard to remove?"
>
> It can be explained partly by a difference of education.
>
> Partly by a quotation from Hilbert: "No one is going to turn us out of the paradise which Cantor has created."
>
> I would say, "I wouldn't dream of trying to drive anyone out of this paradise." I would try to do something quite different: I would try to show you that it is not a paradise—so that you'll leave on your own accord. I would say, "You're welcome to this; just look about you." (LFM, XI pp. 102-103).

Mathematics and the Autonomy of Grammar

Wittgenstein's disagreement with Turing centres on the use of the word 'experiment'. Wittgenstein held that experimentation has no use within mathematics because mathematics is a grammar composed of rules for the manipulation of statements. The result of the calculation 456+22 is not decided by experimentation: 456+22=478 is part of the grammar of mathematics. The rules and practice of mathematics stipulate that 456+22=478 is a true statement whereas 456+22=234 is a false statement. But there are those disposed to the view that we determine the rules of mathematics by correspondence with certain truths that occur through the use of these rules. For instance, if I give you 5 oranges and then 3 watermelons and ask you to tell much fruit you have you will correctly tell me that you have 8 pieces of fruit—somehow this use makes the rule 5+3=8 correct. (Perhaps the 'fact' that schizophrenics often hear voices 'inside their heads' somehow justifies the rule laid down in the DSM-III-R.) But, it has already been argued in Chapter Four, the fact that we use mathematics in this way fixes only the meaning of the rule 5+3=8, it does not determine that the rule contained in the expression is correct. In Chapter Four an argument relating to traffic lights was used to make the same point. (One might now see how it is that Wittgenstein's analysis of

the foundations of mathematics influenced all his other work and how it might be applied.) Similarly, the rules expressed in the practice of psychiatry are not determined to be 'correct' by examining what they mean or how they are used; or incorrect by determining that there is some ambiguity or lack of clarity in there use.

There is a temptation to model the truth of arithmetical equations on empirical propositions. We are tempted to take the certainty that the earth goes around the sun as similar to the veracity of the mathematical proposition 2+2=4. (Baker and Hacker, 1985 p. 292). Scepticism can then be introduced to mathematics. Hallucinations and the like might interfere with the certainty of contingent matters of fact and similarly, because mistake can occur in mathematics, we might suppose that we are mistaken in believing that 12x12=144. Or perhaps some numbers are so large that we will never know what the result of their combination might be. Wittgenstein sets up the problem differently:

> Suppose I asked Wisdom to multiply two very large numbers, and later ask him what the result was. He says, "I had such an awful headache, I don't know really, but I got so-and-so." You might say, "There you are. We have now got the result of an experiment made under the wrong conditions."
> But if he says, "This was what I got"—this is not the mathematical proposition. How do we pass from this to the mathematical proposition: "So-and-so times so-and-so is so-and-so"? It has been said; "It's a question of general consensus." There is something true in this. Only—what is it that we agree to? Do we agree to the mathematical proposition, or do we agree in getting this result? These are entirely different. (LFM, XI p. 106).

Again one should see the parallel between the treatment of these issues and those of Chapter Four. Social consensus does not operate to make a particular answer correct. What we agree to, what we share, is a method of calculation—a way of doing mathematics—from which it follows that the result is correct in terms of the rules we agree to. Similarly, we agree to a form of life in making empirical judgements, measuring, road regulations and so on . Those who *react against* that form of life *might* be declared insane. It is because mathematics is part of our form of life, and indeed occupies a central position, that Wittgenstein declares those who do not believe the result of a mathematical calculation mad. (C. §217).

Suppose it were the case that 12x12=143. Perhaps everyone got it wrong. Wittgenstein declares that it would be irrelevant. The result of the

calculation is of no consequence since what is important is that everyone shares the method (grammar) not whether they agree on the results of that method. Indeed, "There is no such thing as a *wrong* or *false* method of representation" (Baker and Hacker, 1985 p. 293). That a method of calculation is contradictory to our own does not make it wrong, *pace* Frege who declared beings who thought like this insane, but, of course, we would find such a system initially unintelligible. Baker and Hacker continue:

> If such people[Those who believe 12x12=143] almost always found that when they had a dozen groups of a dozen there were 144, they might thank the Gods for always giving them a gift, or they might have a theory about spontaneous generation, or they might attribute magical properties to 12 sets of a dozen. But their calculating techniques would not be *wrong* . It would not be *false to the facts* , since it is not responsible to the facts. Rather it is a measure of what constitutes a fact. (p. 293).

Once again we must return to a previous argument. Why does mathematics seem to get it right, why does it accord with the facts? We consistently calculate twelve times twelve to be one-hundred and forty-four. We line up a dozen sets of a dozen and always get one-hundred and forty-four objects. Surely mathematical propositions are correct because they accord with the facts. But this is misguided. The stability of the natural world is a *precondition* for mathematical certainty in the same way this precondition operates for our techniques of measurement, our conception of time, and our identification of colours.

If I asked someone to tell me how many seconds there are in a day he might, after calculating the result of 24x60x60, respond that there are 86,400 seconds to every day. This would be correct in one sense and incorrect in another. I should think someone was quite mad (In Wittgenstein's sense of the term) if he believed that there were 28 hours in every day, so that he calculated 28x60x60 and arrived at 100800 seconds. How would I prove otherwise, what would convince the person that he was in 'error'? There are those who have specialist knowledge of astronomy who will declare that there are exactly 24 hours, 3 minutes and 56.59 seconds in every solar day. One 'day' according to an astronomer's reckoning is equal to 86636.59 seconds.

There are three points from these considerations. Firstly, we might believe that it is ridiculous to suppose people could develop a mathematical system which did not accord with the facts. The calculation of 12x12=144 is true

paradigmatically across all space and time (As Russell asserted). But every four years we can remind ourselves that the 29th of February has its purpose; it is an intercalcation, which serves to adjust our 'inaccurate' calendar so it accords with the 'facts'(as determined by astronomers). Our concepts of day, minute and second, are as 'wrong' as the tribe that calculates 12x12=143 and thanks the Gods for their beneficence. Secondly, an astronomer has a different grammar for the word 'day' based on a method of calculation which is different from that used, or adopted, by those of us who are non-astronomers. Astronomers can assert that there is 86636.59 seconds in every day because they recognise a different method of determining the concept of 'day'. Astronomers agree that fixing a point on the horizon, or celestial plane, and waiting until some measuring equipment determines that the earth has returned to that exact point, is one day. It is only in contrast to this grammar that it makes sense to suppose that the everyday use of the word 'day' is 'inaccurate'. It will probably never happen that our day is divided into 24hrs 03mins 56.59secs, although technology as it stands could accommodate such a change (we might all wear digital watches in '24hour-plus' mode). This 24 hour-plus conception of day has a technological use reserved for astronomy and leaves the everyday use of day just as it stands. The use of the 'day' in astronomy runs parallel to the everyday use. Finally, the astronomers adopt the convention of measuring in seconds. The period of time 86636.59 seconds could be divided into units other than seconds, say X's. Such a division might be more convenient, such that 100 X's make up something analogous to an hour and 10 of those a day. If this convention was adopted by the astronomers and I asked my original question, "How many seconds are there in the day?" an astronomer could not enlighten me of my 'mistake' in believing that there are 86400 seconds by asserting that there are 10000 X's—The reason for this should become apparent soon.

When Coulter (1973 p. 115) asserts that, 'only a biologist can see a stamen' (Chapter Four p. 130) what he really means is that only a biologist, or someone trained similarly, knows the criteria (has knowledge of the shared grammar) for the use of the word 'stamen' in biology. The criteria for demonstrating an understanding of biology might include being able to *point out* (A criterion for ascribing the ability to see) such things as stamen. Similarly knowledge of colours might be ascribed to those, say a group of artists, who can pick subtle shades of blues and give them names, but this does not mean that others cannot *see* those colours.

Wittgenstein concludes that grammatical rules are arbitrary with the consequence that their acceptance is groundless; it is only by accepting a form of life, a way of acting, that we accept a form of representation.

Wittgenstein declared:

> One is tempted to justify rules of grammar by sentences like 'But there really are four primary colours.' And the saying that the rules of grammar are arbitrary is directed against the possibility of this justification, which is constructed on the model of justifying a sentence by pointing to what verifies it. (Z §331).

If we carved up nature differently with a different grammar of colour words then our concepts would bear only a remote relation to those which we currently adopt but this would not make them wrong (As Carroll's nonsense bears some relation to our world but cannot be described as wrong). Baker and Hacker (1985) footnote an explanation of the inclusion of the use of the phrase, "Four primary colours" with:

> It is striking, and amusing, that there is disagreement over this. What is the nature of this disagreement? And how would it be settled? Not by experiment! Or rather, if by experiment, then we have changed the meaning of primary colour and it is an empirical truth that could be otherwise, and on Betelgueuse may be so. (1985 p. 330).

Of course if it is a grammatical truth that there really are four primary colours then it is a rule used in the measurement of colours. Those who would claim that there are only three beg to differ on a grammatical classification which allows certain evidence.

Psychologists really do differ in their grammatical classification of primary colours: 450-500nm=blue, 500-570nm=green, and 620-700nm=red. Standard textbooks report that in this regard,"The number three...is significant" (Atkinson, Atkinson, Smith, Bem, and Hilgard, 1990 pp. 130-131). What is missing is obviously the 570-620nm range which is yellow. But red (650nm) in combination with green (500nm) produces the subjective experience of yellow. Therefore on this view only red, green and blue are included as primary colours. The explanation of this phenomenon has a cautionary note:

> ..we are referring to mixing lights, called an *additive* mixture; we are not referring to mixing paints or pigments, a *subtractive* mixture...The rules of colour mixture are different for mixing colours (paints) and mixing lights....In mixing paints, the physical

> stimulus is itself altered, the mixture takes place outside the eye, and hence is a topic for physics. In contrast, in mixing lights, the mixture occurs in the eye itself and thus is a topic for psychology. (Atkinson *et al* , 1990 pp. 130-131).

Psychologist beg to differ, like astronomers with their conception of 'day' on a method, and therefore what constitutes appropriate evidence for a particular grammatical classification of primary colours. While philosophers might find such an appeal amusing it is this legitimate 'move' (To the extent that we can reorganise our grammar and are not *wrong* to do so—it may of course result in nonsense but the 'move' and the result should be distinguished). Notwithstanding the legitimacy of the move, Wittgenstein regarded such manoeuvres to be symptomatic of the deepest problems in the practices we employ in psychology.

Wittgenstein remarks:

> The confusion and barrenness of psychology is not to be explained by calling it a "young science"; its state is not comparable with that of physics, for instance, in its beginnings. (Rather with that of a certain branch of mathematics. Set Theory.) For in psychology there are experimental methods and conceptual confusion. (As in the other case conceptual confusion and methods of proof.) (PI, II p. 232).

It is Cantor (1845-1918) who is said to be the father of modern set theory. Cantor's diagonal procedure demonstrates that the set of all natural numbers, N, is not equivalent to the set of all real numbers, and therefore there exists more than one infinite set. (Flew, 1979 pp. 50-51). It is the diagonal procedure which Wittgenstein refers to as a method of proof which brings about conceptual confusion. Wittgenstein believes he cannot 'turf' anyone out of 'Cantor's paradise', for it is a method which establishes a form of representation (LFM, XI p.102). The methods for establishing the representation of set theory are internally related to that representation. Wittgenstein argues instead that the representation has no use—that it is not a paradise. Similarly Szasz (1987) cannot convince us that the psychiatrists have the wrong ascription of insanity for 'wrong' and 'false' do not apply, and Rosenhan's 'evidence' goes wanting.

In psychology it is experimental methods which bring about conceptual confusion. Cantor's 'paradise' is created by a method of proof. In psychology it is the entanglement of language which leads us to develop theoretical

structures which lead us astray by suggesting an interpretation to our experimental results. Kenny (1985 p. 56) explains:

> "I think what he had in mind here is experimental psychologists who start from a mythological view of the nature of mental processes, which they take from ordinary language, and accept unquestioned, as if it were the experimental basis of their research."

Psychological terms derive their meaning through their use within theory. Experimental procedures produce evidence within a particular grammar. The grammar and the evidence are internally related. The suggestion from Wittgenstein is that no amount of empirical investigation will resolve any conceptual confusion. Whatever is a legitimate empirical technique is already licensed by a grammar. The following section offers an example of how these insights apply to psychology.

Experimental discovery in Psychology

Schachter (1971) conducted a series of tests on psychopaths to evaluate their lack of emotionality and inability to learn avoidance behaviour. A maze learning task was reinforced by punishment (an electric shock). Psychopaths, despite their ability to learn given positive reinforcement (e.g money given for the successful learning), failed (in comparison to normals) to learn the avoidance task. When given adrenalin psychopaths learned the avoidance task better then the control group of normals. Normals seemed unable to learn when injected with adrenalin. Contrary to the obvious conclusion, that psychopaths are somehow under-aroused and therefore do not exhibit the anxiety assumed to be required for successful avoidance learning, psychopaths were found to be highly aroused (i.e high heart-rates and GSR's). Troubled by this seemingly paradoxical, and certainly unexpected result, Schachter searched the literature for research which showed that psychopaths are 'highly-strung' (This is not to say that they are highly emotional as one of the diagnostic criteria for psychopathy, or anti-social personality disorder as it is now classified, is that the person concerned has emotional flatness or lack of affect). Schachter summarises:

> From the results of these studies, and of our own results, it would appear that high autonomic reactivity characterises those who are both extremely high in anxiety and emotionality and

> those who are extremely low in anxiety and emotionality... (p. 178).

Psychopaths are more sensitive to adrenalin than normals. Their autonomic activity increases proportionately more than normals, and they are more reactive to a wider range of stimuli than normals. If there was a simple relationship between autonomic activity and emotionality then psychopaths would be characterised by high emotionality, but we know that this is not the case. That is to say, we do not characterise psychopaths as being highly emotional.

To explain these results relating to psychopaths Schachter combines his findings with those which he produce with Singer in 1962. The study showed that, "...a state of physiological arousal is a necessary but not a sufficient condition for emotion". (Schachter, 1971 p. 178). One might also gain this insight by understanding the grammar of the nature of emotions terms by undertaking the kind of analysis provided by Wittgenstein and supported by the social constructionists (see Chapter Three). It seems that the 1962 study provides an understanding of the nature of emotion when all it really does is illustrate a point relating to the grammar of emotion terms. Harré (1989a p. 444) suggests that much of the research conducted in emotion studies should be reinterpreted in the light of this conclusion. The conclusion of Schachter and Singer's research, regardless of whether it is obtained by an analysis of the grammar of emotion terms or through research, provides the impetus for Schachter's (1971) conclusions relating to the physiological correlates of psychopathy.

Schachter concludes, by relying on the insight that physiological arousal is insufficient to characterise emotionality, that:

> The sociopath reacts sympathetically to events which are labelled frightening by others, but he also reacts to events labelled relatively harmless by others. Such generalized, relatively indiscriminate reactivity is, I would suggest, almost the equivalent of no reactivity at all...Bodily conditions which for others are associated with emotionality are, for the sociopath, his "normal" state. Given a chronic history of autonomic reactivity, only a marked increase in activation will be labelled as an emotional state, and perhaps even noticed. (p. 179).

There is an obvious error in Schachter's conclusion which was examined in Chapter Three—it makes no sense to assert that an individual knows what his or her emotional state is by pointing inwardly and labelling some inner

criteria. Nevertheless before examining the problems of Schachter's conclusions it is necessary to add one final comment he offers:

> If an individual can learn not to apply emotional labels to his bodily feelings in situations that customary usage defines as emotional, it seems equally possible that the opposite will hold; that is, that an autonomically hyperactive individual can learn to apply emotional labels to his bodily feelings in situations that would customarily be defined as nonemotional. (p. 182).

No explanation of the nature of psychopathy is given by the statement that they are 'autonomically reactive'. A psychopath just reacts (physiologically) to stimuli. 'Indiscriminate reactivity' is, by definition, not *reactivity* at all. To discriminate is to react in a way to choose between different options. If one does not discriminate then 'reaction' is reduced to action. If that action is different from normals then all Schachter has described is a physiological difference between the 'psychopathic' and 'normals' which can be identified under certain conditions (i.e those which the experiment was designed to establish). Schachter provides the observation that psychopaths are highly aroused all the time whereas the arousal level of normals fluctuates according to environmental stimuli. Additionally, and most importantly, the identification of psychopaths by describing them as 'autonomically reactive' relies on there being a difference between these two groups which can be ascertained by other means (e.g. Clinical diagnosis). Whether Schachter has said anything useful about psychopaths with his study relies *almost* entirely on the selection of his 'psychopathic' group from his 'control'.

Could Schachter's findings relate to other groups of people which we can identify independently? Perhaps the creative have the same physiological state as the psychopaths. A group of 'non-normal' people can be identified by clinical diagnosis, but findings that relate to this group cannot be justifiably characteristics of this group only. Schachter cannot assert that he has found a characteristic exclusive to psychopaths because the result may well obtain in other groups. Our use of the word 'psychopathy' in clinical diagnosis, or in psychology generally, (I have deliberately avoided the phrase 'everyday language') does not provide the foundation for assertions like, "psychopaths can be characterised by 'autonomic reactivity'". Other groups may well be included within this description—in particular the creative. Furthermore Schachter (1971 p. 182) admits that the conduct of other groups, such as anxiety-neurotics, might be explained by the

development of inappropriate labelling of high arousal as an emotional state in emotion-neutral environments. Thus by inappropriate labelling the anxiety neurotic labels his as an emotional state one which is not considered by others as appropriately an emotion state.

Despite the problems produced in Schachter's account of psychopathy he has identified a number of interesting points. Psychopaths, characterised by emotional flatness, might have a feature of their physiology which will provide a useful indicator of the connection to the creative. Schachter is quite correct in asserting that 'psychopathy' must be understood in relation to environmental and situational variables. Psychopathy is not simply 'high-autonomic reactivity' or perhaps more correctly 'high sympathetic arousal which does not fluctuate according to situational variables'. The word 'psychopathic' does not mean 'high autonomic arousal'.

We rely on our description of psychological terms, like 'psychopathy', or 'anxiety-neuroticism', as accurately representing concepts and providing the basis for experimental research. Is the assumption justified? It has been shown that within theoretical perspectives designed to characterise psychological terms, like cognitive science, psychological terms are misused. Yet the grammar of psychiatric classification is not 'wrong' or 'false' and licenses certain transactions within the language-game of psychiatric diagnosis (In the same way the C-Fibre thesis is not wrong—it is nonsense). The grammar of psychiatric diagnosis can be defended against claims based on so-called metaphysical impossibilities like failing to distinguish between real and feigned insanity, and is invulnerable to evidential challenge because of the internal relation between the grammar and the evidence. Schachter's research relies on the classification of psychopaths by clinical diagnosis. Nevertheless, to give up faith in a 'form of representation', a grammar, rule or practice, one cannot embark on empirical testing. Schachter is in the same position as a person who attempts to test the adequacy of a metre ruler by measuring various objects of unknown length or places their hand on top of their head to measure their height.

There are, for now, two related conclusions. Firstly, Schachter's research cannot extend our understanding of psychopathy beyond what it is based on, viz., psychiatric diagnosis. He cannot offer a new account of psychopathy based on his experiment because ultimately his observations rely on psychiatric classification: the grammar of psychiatric diagnosis

fences him in. Secondly, this does not make his observations ungrounded or useless, it does not rule out empirical psychology. The fact that we have different units of measurement (imperial, metric, the length of a thumb, and the distance of a stride) does not undermine the meaningfulness of the practice of measurement. We might create a new measure of time with reference to seconds, we are not wrong to do so. Similarly, Schachter can describe psychopaths as 'autonomically reactive' but this insight is limited in the same way the measurement of time is since it is ultimately reducible to the criteria, or method, from which it arose.

(c) Going behind the phenomenon

> If it is a calculation, we *adopt* it as a calculation—that is, we make a rule of it. We make the description of it the description of a *norm*—we say, "This is what we are going to compare things with." It gives us a method of describing experiments, by saying they deviate from this by so much...If we call it a calculation, it's a complete picture which now serves as a standard or phraseology for the description of an experiment.
> We might have adopted 2 + 2 = 4 because two balls and two balls balances four. But now we adopt it, it is aloof from experimentation—it is petrified. (LFM, X p. 98).

Mathematical Archives and Empirical evidence

Wittgenstein's concerns for the identification of grammar and its role within experimentation are helpful in explaining away the confusion as to whether or not insanity is related to creativity. Consider:

> This area of inquiry appears more than intriguing. If creativity in fact bears some relationship, or relationship in some cases, to mental disturbance, it may be of paramount importance to uncover its sources. While some of these sources might carry relatively little significance, others could help build bridges between the normal, the abnormal, and the usefully exceptional. At their most helpful, they could perhaps even provide new perspectives and approaches to some troubling mental afflictions and create in addition, a broader and more accepting climate for the spectrum and limits of "normal" human development. (Richards 1981 p. 264).

But what would establish the desired connection? How would I change the conception of 'normal' or 'abnormal' that people adopt? If the concept of psychopathology is a rule laid down in the DSM-III-R, used as a description in experimentation, then according to Wittgenstein that concept is 'petrified' and 'aloof from experimentation'. Psychology seems impotent to carry out the developments suggested by Richards (1981). No experiment will effect the change of a grammar like the one created and maintained by psychiatrists, since grammar is not responsible to the facts and indeed constitutes what we take to be the facts as a result of experimentation.

Wittgenstein (in Diamond 1973) describes the rules of a grammar as being placed into an archive for future reference. In mathematics it is clear that rules are not disputed. No one asserts that 2+3=78, for instance, and no one wants to produce a challenge to the rules established in the 'archives of mathematics'. How then, given the assumptions that insanity is somehow related to creativity and that the established tradition in psychiatry requires some change, is it possible to challenge the established rules set down in psychiatry and psychology of their representation of mental illness such that it might accord with a representation of creativity and accord with the facts?

Perhaps the connection between insanity and creativity is as Ochse (1990) concludes "...the mediating link between creativity and pathology may be a *motivational thrust* (resulting from emotional insecurity) *leading to two possible outcomes—intellectual gains and emotional disorder.* (p. 119). The idea that some motivational factor is responsible for madness and creativity arises within the psycho-analytic tradition directly as a result of Freud.

Freud held that some developmental process causes conflict within the individual which arises in a feeling of guilt, fear of punishment (anxiety), or some other undesirable emotional state. As a child the potential creator, or neurotic, forces the conflict provoking situation into unconsciousness where it remains unresolved. This unresolved conflict causes tension which is repressed by self-discipline, and a willingness to undertake risks and stresses which the creative must endure to produce the creative product. Freud found difficulty in offering an explanation for creativity speaking of "the unanalyzable endowment" and the "riddle of the miraculous gift that makes an artist" (cited in Richards, 1981 p. 269). Freud's contribution, and the contribution from the psycho-analytic perspective, is most worthwhile for maintaining the connection between insanity and

creativity which is lost in later approaches contained within humanistic psychology and, more recently in theory of cognitivist alliance.

Wittgenstein criticised Freud, although he admired his work, as he found it a good source of philosophical errors (Suter, 1989 p. 39). Wittgenstein admired Freud's work because he saw a similarity in purpose with his own; he thought that Freud's thought was aimed at converting people to a new way of thinking, not by doing science but by offering a different approach (Suter, 1989 p. 38). Wittgenstein declares that Freud gives us something which is untestable. Freud did not offer his thoughts in the form of hypotheses, his claims were something prior to hypothesis, he gave us *speculation* (LC, p. 44). Freud propounds a new mythology, one involving new mysterious figures like 'ego' and 'id' which are unverifiable. Freud created a 'paradise' for people to work within. Wittgenstein requests a critical approach to Freud and offers some piercing criticisms to his general approach to psychology (Suter, 1989; Cioffi, 1991).

Freud's 'speculation' is of interest to this investigation because it can be 'explained away'—that is that by offering an alternative free of the philosophical muddles concerning the nature of the concepts of insanity and creativity it is hoped that the Freudian myth will be dissolved while the insight gained from Freud's speculation can be preserved. Freud suggests two things which are of great interest: The creative have adapted in childhood to avoid guilt and anxiety. This capacity somehow facilitates the production of creative work. (Notice the similarity to Schachter's explanation of psychopaths: they have an absence of guilt and anxiety learned in childhood.)

The grammar of Creativity

To create a set of propositions (theory) which did not exist before is to adopt a use of words which is unintelligible relative to a shared practice (see Chapter Four). Wittgenstein comments on this regularly in his *Lectures on the Foundations of Mathematics.*

> ...suppose that a physicist says, "I have at last discovered how to see what people look like in the—which no one had ever before known." Suppose Lewy say he is very surprised. I would say, "Lewy, don't be surprised", which would be to say, "Don't talk bosh." (LFM, I, p. 17).

It was seen in Chapter Four that Wittgenstein was quite willing to give the ascription of madness or the like to those who deny certain facts or made unusual observations. Now he is quite willing to suppose that the physicist in his example can combine a group of words into a proposition which is unintelligible (to Lewy at least) despite the proposition being quite clearly in the category of the denial of a methodological proposition, and be content with the idea that the physicist can make his statement intelligible.

Wittgenstein continues:

> Suppose he goes on to explain that he has discovered how to photograph by infra-red rays. Then you have a right to be surprised if you feel like it, but about something entirely different. It is a different kind of surprise. Before, you felt a kind a mental whirl...—which whirl is a sign you haven't understood something. You shouldn't just gape at him; you should say, "I don't know what you are talking about."(LFM, I, p. 17).

Morawetz offered an explanation for Wittgenstein's use of the concept of mental disturbance: "We cannot understand the relation of a speaker to his error."(Morawetz, 1978 p. 40). It is clear that someone who ordinarily thinks that they can see people in the dark, behind a curtain, or camouflaged in the forest, is talking nonsense (you could test their claim if you were in any doubt but suppose that you found they were in error). The scientist who creates the technique of infra-red photography can explain what he means with reference to a context in which it is intelligible (i.e wavelengths of light which are imperceptible to the human eye but detectable with equipment). In the absence of this explanation the proposition remains unintelligible. Wittgenstein remarks:

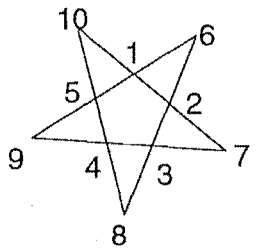
> He may say, "Don't you understand English? Don't you understand 'look like', 'in the dark', etc?" Suppose he shows you some infra-red photographs and says, "This is what you look like in the dark." This way of expressing what he has discovered is sensational, and therefore fishy. It makes it look like a different *kind* of discovery. (LFM, I, p. 17).

A proposition is intelligible only if its use is shared by the parties involved. An unshared rule for the use of a proposition is unintelligible, even if the words used are in themselves familiar (cf. Carroll's nonsense & Insanity pp. 141-142). This explains why Wittgenstein questions the validity of offering an unexplained piece of evidence in relation to an unintelligible proposition. It simply will not do to make a proposition which is

unintelligible, like "This is what people look like in the dark", if the explanation for the intelligibility of that proposition is a piece of evidence which would not be countenanced (shared as evidence) by the party who is subject to the explanation. The different kind of discovery would be the acceptance of the photograph as evidence for a particular proposition: when on Wittgenstein's view it is the acceptance of the grammar which is important.

Armed with the general principle that a proposition makes sense only by demonstrating its use Wittgenstein sets out to isolate those propositions which describe the use of empirical statements and empirical statements themselves. By examining propositions which seem to be cases which fall somewhere in between empirical statements and mathematical statements Wittgenstein claims:

> Now what I am driving at is the difference between counting the people in this room and counting the points of intersection in the pentagram.



> "The pentagram" is the name of this figure.
>
> Is there a difference between the use of the sentence "There are ten people in this room" and "There are ten points of intersection in the pentagram"?—The latter is a mathematical proposition and the former is not. Why? "Well, the one talks of people, the other points and lines." But that is not an essential difference....The word "men" may come in and it may still be mathematics; and the word "lines" may come in and it may *not* be mathematics. (LFM, XII p. 115).

It is this distinction that the following argument explores. It is argued that the assumption that insanity is related to creativity is a grammatical claim about a relation between the concepts of insanity and creativity (As developed in Chapter Four). This is analogous to the view that a mathematical proposition has terms which are grammatically connected through our acceptance of the practice of mathematics. The suggestion that the creative, as a distinct and separate population have a higher incidence

of psychopathology from normals, is an empirical claim licensed by the above grammatical claim.

The incidence of Creativity and Insanity: A defence of method

The conceptual confusions which operate in psychology that Wittgenstein identifies come from viewing psychological investigations in a particular way. Psychologists often express the view that empirical research is about something which can verify the terms of theory. Perhaps some remarkable discovery will reveal the nature of creativity and the mysterious connection to madness. But what is overlooked is the the way the concepts of insanity and creativity are used within psychology.

Certainly the concepts of insanity and creativity are not held as being mutually exclusive. It is possible to establish that creative people are insane. Salavador Dali was undoubtedly a candidate for the ascription of madness. Lichtenstein (1971 p. 161) lists as senile psychotics: "Kant, Copernicus, Faraday, Stendahl" but adds that this condition seemed not to interfere with their work. Functional psychotics included "Tasso, Holderlin, Strindberg, Van Gogh, Nerval, Maupassant, Schumann, Lamb and Comte" (p. 161). Even Freud is included among those considered to have suffered from productive neurosis (Lichtenstein 1971 p. 161). It should not be overlooked that hundreds of creative people were considered sane and healthy.

It has been suggested that the diagnostic criteria within the DSM-III-R operate as a grammar of psychiatric diagnosis and are not therefore responsible to evidential challenge. It is not possible for an person to challenge the ascription of madness based on other criteria, such as those developed by an experiment. Similarly it makes no sense to suppose that I could know 1+1=1 by observing the combination of raindrops on a window. But a tribe that had a mathematics which had the statement 1+1=1 would not be wrong to do so. Surely I could convince this tribe that one apple plus one apple means that I have two apples? I could pick up apples and show them that I have two. They however need not take this as evidence of anything related to their mathematical system which may not extend beyond games relating to raindrops on glass.

Perhaps the tribe comprehend addition in such a way that all combinations result in the loss of recognition of the individual units involved. Marriage in the tribe is a conjoining of individuals such that they become one entity and children as being absorbed within the population rather than an addition of an individual. Their assessment of their system of calculation might be based on volume. They might, for example, acknowledge good times when their village expanded past a certain point and suggest that their principle of addition is verified by observation of the relative size of their village in accordance with the number of combinations that occur in a year. (They do not have our mathematical system purely because they acknowledge that there are, for example, seventy newborns in one year since they insist that 1+1=1, which is excluded from our mathematics; they have, it is supposed, our concept of counting but not addition.) The tribe does not accept my concept of addition nor my proof of this concept since they accept that I have two apples but that if I combined the apples by addition I would have one set of apples rather than two apples. (They might not even accept my demonstration as appropriate as a proof of anything in mathematics.)

Juda (1949) was the first to systematically investigate the relationship between the creative and the insane. Without asserting anything like a definition of creativity or insanity, which is generally taken as a limitation of this research (Richards 1981), Juda describes the incidence of psychopathology in 294 "highly gifted" individuals and their families. Juda does not base his research on any theory, no Freudian, or neo-Freudian position is assumed to be verified on the basis of the research; although it may have inspired the mammoth effort to conduct the five thousand interviews over twenty-six years of the relatives and descendants of the people selected as creative. From a selection of 113 artists and 181 scientists Juda gained evaluations, where it was possible, of a psychiatric diagnosis of each subject, their parents, siblings, children, and grandchildren.

Juda (1949) found that 5.3% of the artists and 6.1% of the scientists could be described as psychotic, compared to the general population being 2.0% psychotic. Despite the difficulties of assessment it is useful to point out that he assessed as psychopathic 27.4% of the artists and 14.4% of the scientists compared to an intermediate group (those regarded as 'gifted' but not 'highly gifted") of gifted individuals who were estimated as containing 19.1% psychopaths. Juda's study of the relatives found a higher incidence of both psychotic illness and psychopathy in all categories. The results show

that parents and siblings and children have a higher incidence of psychopathology than grandchildren in most cases.

A study by Karlsson (1970) studied the supposed association between insanity and creativity from the opposite perspective from Juda (1949). Karlsson studied the incidence of creativity in a population of those identified with some psychopathology. Again Karlsson did not assume any particular theory but simply set out to describe the incidence of creativity in the families of the mentally ill. Karlsson relied on the listing in Iceland's *Who is Who* as indicative of creativity. Richards (1981) describes this assumption as: creativity, "leniently defined" (p. 288). Nevertheless, Karlsson reports that family members of the mentally ill have roughly twice the likelihood of being referenced in the book than normals.

Andreasen and Canter (1978) found results to support the findings of Juda (1949). Relatives of the creative (all writers) and the subjects themselves have a higher incidence of mental disorder than a control group and their relatives. Andreasen and Canter conclude that the prevalence of affective disorders in their sample indicates that the psychopathology of the creative writer is normally an affective disorder and not schizophrenic. In particular, Andreasen and Canter offer the observation that the personality type is usually cyclothymic rather than schizoid.

There is a temptation to interpret the findings of the above research as indicating that both creativity and insanity have a genetic basis. Ochse (1990) reports several attempts to explain this type of research. For example Prentky (1980) maintains that the "...the same neuro-chemical aberration that impairs the fragile filtering mechanism in thought disordered patients also provides an advantage for creative thinking"(Ochse 1990 p. 116). Galton suggested that pathology may result from an over-excited mind. There are also a variety of explanations which have a neo-Freudian bent which considers creativity to result in anxiety reduction caused by inner conflict which may manifest itself in some psychopathology as well as creativity, including Storr (1983), Richards (1981), and Lichtenstein (1971). The problem here is the same as the problem we would have in confronting the tribe who had no concept of addition in their mathematics. The same evidence is taken as indicating a different rule of use for the concepts of creativity and insanity or alternatively different concepts of insanity and creativity are taken to explain the results.

There is nothing problematic, so far as can be established from the interpretation of Wittgenstein given, with the research which seeks to establish that the incidence of creativity in a population of the mentally ill is significantly higher than that of a group of normals. Similarly, there is nothing problematic about the opposite approach which identifies that the creative have a higher incidence of psychopathology. Despite the methodological difficulties in identifying the creative and the insane, the task of actually measuring the incidence of these characteristics of individuals does not offend any grammatical boundaries, and is therefore philosophically uninteresting. The task is not analogous to measuring the length of a colour, or suggesting that the insane are insane because they display thoughts which are not legitimated by society. That we have difficulty identifying the insane, because people might, for example feign insanity, is not a limitation of our grammar. For all that is assumed is that we can count the number of people with a particular set of features which we identify. Richards (1990) points out, perhaps the creative desire so much to be different from normals that they display deviant behaviour as part of a "self-fulfilling prophecy" (p. 322). Perhaps the creative feign insane symptoms? But even if such contingencies occur they do not prevent psychological inquiry. Empirical research is a legitimate method of psychology. If psychology restricted itself to simple descriptions, if the problems of psychology were simply stated as in "Are there more people classified as insane in a sample of the creative than normals", then psychology would offend no grammatical boundaries. Baker and Hacker (1985) point out philosophy has the task of relieving us of conceptual entanglement, but none is involved here. The problem is that our methods of measurement produce information which seems to require interpretation. Knowing the incidence of mental illness in the creative (however they are defined) is derived from a method of testing which is unrelated to the actual problem which is to determine a connection between insanity and creativity.

Wittgenstein is quite clear:

> "20 apples+30 apples=50 apples" may not be a proposition about apples. Whether it is depends on its use. It *may* be a proposition of arithmetic—and in this case we could call it a proposition about numbers.
>
> You might ask, "Isn't there something queer about this? How could all this have changed what it is about?" But that is how we

> use the phrase "a statement about numbers". As soon as it's applied in a certain way, we say it's about numbers.
> And a *discovery* —"627+324=..."—could in the one case a discovery about apples, in the other case a discovery about numbers—according to what we do with it. (LFM, XII p.113-114).

Sometimes psychologists make claims about grammar as if an empirical discovery somehow penetrates that grammar—as if "627+324..." were a discovery about mathematics, when, according to Wittgenstein, it is merely descriptive of a grammar. Schachter (1971) does this when he suggests that his empirical discoveries describe the nature of psychopathy. Similarly the evidence provided by Juda (1949), Karlsson (1970) and the others is acceptable as a consequence of a grammar which provides an acceptable relation between insanity and creativity; the results do not justify that relation. If Juda's results, for example, are used to describe that grammar, then like the situation in which 20 apples plus 30 apples is taken as being about the rule of arithmetic, he could conclude that acceptable practices in psychology allow the identification of certain features of one group of individuals occurring in another group. The rule stated baldly might be that: Features that make up A (Mental illness) occur more often in group B (The creative) than in C (Normals). No grammatical rule is breached, certainly no rule peculiar to psychology. If used in this way then Juda's results amount a mathematical relation. One could even imagine the results being used to describe the relative size of sets in a mathematical problem.

But the statement: "The creative have a higher incidence of mental illness than the normal population" must surely be about the creative *and* the mentally ill. The empirical investigation of such phenomena is perfectly acceptable but it relies on a grammatical association between creativity and insanity. Assumed within method adopted by Juda (1949) and others is that the relation is an acceptable one licensed by a grammar; that it makes sense to investigate the relation between creativity and insanity. The mathematical rule of A+B=C licences the relation between objects that can be counted. Yellow in combination with blue gives green is licensed by our grammar of colour combinations. Excluded from our grammar are transformations like red in combination with purple produces bright yellow. Excluded from mathematics such as red plus three equals.... since stated in this way 'red' cannot be counted. I might count the number of red cars but not the number of red.

Psychological inquiry relies on a grammar which is less obviously flawed than the trivial examples above. Some examples of our conceptual confusion have already been offered (see Chapters Two Three and Four). To avoid these conceptual confusions we must attend to the way our concepts are employed within theory. It is important to note that the preceding example relied on the assumption that creativity was related conceptually or grammatically to insanity. The problem remains that this assumption seems to require some justification within theory.

Conclusions

By adopting Wittgenstein's position we regard the intelligibility of our proposals to derive from a shared practice. Our mutual adherence to certain rules constitutes the normative procedures adopted in the use of our expressions in relation to the internally related criteria which accord or conflict with those expressions. Wittgenstein regards those expressions which govern the manipulation of empirical statements to constitute a 'grammar'. That 'grammar' is comprised of a mutual way of acting. Alternative practices may be offered in contrast to an established way of acting but they cannot, in principle, determine the falsity of a grammar—grammar is autonomous.

The DSM-III-R can be considered, in a limited sense, as providing a description of the grammar of the ascription of mental illness. Szasz offers a critique of that grammar by relying on a metaphysical impossibility: that one cannot feign insanity. Szasz's reliance on this so-called 'impossibility' is not unlike that examined in Chapter Three: "That I cannot feel his pains nor he mine". We must not present grammatical observations as if they established some metaphysical impossibility. Szasz's argument was dissolved in a similar way to the argument in Chapter Three by considering Szasz's use of the word 'deception'. Despite the poverty of Szasz's argument it was left open that psychiatric diagnosis might be improved so that some connection between insanity and creativity might become legitimate inquiry within psychology. This option followed directly from the assumption that the concepts of insanity and creativity have a grammatical connection. The assumption is excluded from consideration in psychiatric diagnosis—which is not to say that it is excluded from consideration in psychiatry or psychology because as we know psychologists have directed

theoretical and empirical study towards establishing a connection between the concepts.

Schachter's (1971) work on psychopaths was used as an example to show how that in psychology experimental techniques cannot resolve conceptual confusion. Schachter's work might be interpreted as producing some evidence for a physiological basis for psychopathy, viz., psychopaths are 'autonomically reactive'. But exactly what is a psychopath? Schachter relies on the grammatical distinctions present in the DSM-III-R to provide his subjects and controls. Do these distinctions provide the foundation for his research? Perhaps other groups, such as the creative are autonomically reactive? It is the grammar of the ascription of mental illness that provides the basis for his research. That grammar cannot be overturned by empirical inquiry, such as Schachter's, for even if it was found that another group of individuals were 'autonomically reactive' the problem is displaced. We would require the connection between this 'autonomic reactivity' and psychopathy? If I randomly tested people and found many that were 'autonomically reactive' this would not constitute evidence that they were psychopathic. Suppose all judges were found to be autonomically reactive—would this change the way psychiatrists considered psychopathy? The criteria for what we consider psychopathy to be are not responsible to this type of empirical inquiry. Our grammar of psychiatric classification is 'petrified' in the social practice of ascribing mental illness to others: it describes what constitutes the facts and is not responsible to them.

The conclusion that grammar is autonomous does not preclude empirical inquiry. Certainly some types of inquiry are ruled out by the grammar which we share. We cannot investigate mythical creations of a confused grammar. Hidden causal mechanisms cannot in principal be discovered to provide an understanding of the relationship between the creative and the insane (Chapter Two). The evidence gathered by Juda and others does not, in principle, justify any theoretical assumptions made to link together the concepts of insanity and creativity but nevertheless it stands as evidence licensed by a grammar which provides a distinction between the creative and insane. The problem remains that such evidence *seems* to require some justification within psychological theory.

Chapter Six

Divergent Practices: A Conflict of Grammars

Introduction

To get a clearer grasp of the connection between the examples in the preceding chapter it is useful to examine Shotter's attempt to characterise the nature of empirical psychology from a 'Wittgensteinian perspective'. Shotter (1991) maintains:

> Words do not in themselves have a meaning, but a *use*, and furthermore, a use *only in a context* ; they are at best thought of, not as having already determined meanings, but as *means*, as tools, or as instruments for use in the making of meanings.... (p. 200).

and continues

> ..the idea of 'agreement with reality' lacks any clear application...everyday human activities do not just appear vague and indefinite because we are still as yet ignorant of their true underlying nature, but that they are really vague... the fact is, there is no order, no already predetermined order, just an order of possibilities, an order of possible orderings which it is up to us to make as we see fit. (p. 202).

Szasz's conception of insanity as a role played out by persons in relation to psychiatrists is a statement about the grammar of the term insanity (Chapter Five pp. 165-171). Note that Szasz's conception of insanity does not offend against the description of the grammar presented in Chapter Four. But Szasz cannot justify his negative thesis which attacks psychiatric classifications because he relies on a misuse of the word 'deception'. Szasz's conception of insanity is open to philosophical inspection and dismissal.

Szasz presents a possible order, but his tools are misused, his structure collapses upon philosophical examination.

Schachter relies on the classification of psychopaths by clinicians in order to study their characteristics but his study is entangled within a method reliant upon the identification of the very thing he seeks to explain—he relies on a pre-determined order. Schachter cannot remove conceptual confusion or offer a new rule for the identification of psychopaths on the basis of his work.

Empirical techniques used by psychologists rely upon the grammar of the psychological terms employed within that research. This does not mean that empirical investigation is useless or nonsensical. Given the assumption that insanity is related to creativity—one possible ordering—it is possible to describe certain occurrences in which this assumption might hold. The problem is then to decide whether these assumptions might be useful. The assumption that 'psychological predicates describe brain states or functional states' has been shown to be incoherent (Chapter Two). Similarly, the assumptions that psychological predicates have their meaning determined by society and that 'autonomous individuals' cannot have the intentional use of symbols have been shown to lead to conceptual confusion (Chapters Three and Four). It was by attention to the use of terms within those theories that the confusion was identified. By attending to the grammar of the terms of interest, insanity and creativity, it is possible (perhaps not actual) to avoid conceptual entanglement and provide an understanding of the relationship, and its usefulness, within theory.

The Grammar of Creativity in relation to the Grammar of Insanity

A difference in the interpretation of a statement or action ultimately depends upon a difference in a practice, context, or custom. Unintelligible actions and statements result when two parties do not share common practices surrounding the interpretation of an action or statement. If there is a genuine practice, or rule for the use of a statement, then that statement is potentially intelligible. Insane actions and statements are rule-governed but unintelligible; these actions constitute a special type of unintelligibility where the unintelligibility is dependent upon a society, or set of shared rules and practices. In Chapter Four it was argued that if the insane are viewed in any other way, either having no rules for the use of their

statements or having rules independently formed which happen to clash with those of a society, then either the insane produce the philosophical impossibility of having a genuine private language or they are potentially intelligible. Both of these consequences were rejected.

If Wittgenstein's comments on epistemological issues in *On Certainty* are to be understood then it is crucial that his use of terms encompassed by the general phrase 'mental disturbance' be clear. It has been argued that context changes across time, that the rules of a society are flexible and dynamic. It is within the explanation of a change in context that an understanding of the grammar of creativity is possible; a society can adjust its practice to accommodate initially incomprehensible (unclear) actions or statements. It is a process in which society learns the rules laid down by creative inspiration.

Wittgenstein (1969) accepted that language and customs change across time. He offered an outline in a metaphor of the components of the creative process. Morawetz (1978 p. 42) collected these statements and labelled them the "Metaphor of the Riverbed".

> It might be imagined that some propositions, of the form of empirical propositions, were hardened and functioned as channels for such empirical propositions as were not hardened but fluid; and that this relation altered with time, in that fluid propositions hardened and hard ones became fluid.(C. §96).
> The mythology may change back into a state of flux, the river-bed of thoughts may shift. But I distinguish between the movement of the waters on the riverbed and the shift of the bed itself; though there is no sharp division of one from the other.(C. §97).
> But if someone were to say, "So logic too is an empirical science" he would be wrong. Yet this is right: the same proposition may get treated at one time as something to test by experience, at another as a rule of testing.(C. §98).
> And the bank of that river consists partly of hard rock, subject to no alteration or only to an imperceptible one, partly of sand, which now in one place now in another gets washed away or deposited. (C. §99).

Wittgenstein's analogy is misleading in some respects. Morawetz (1978 pp. 43-46) suggests that the imperceptible alteration of the 'hard rock' is untenable. Some beliefs which appear to be methodological propositions can only be changed dramatically. A proposition like, "Mt Cook is the highest mountain in New Zealand" will be removed not imperceptibly but by either a fantastic discovery of some higher mountain or dramatic

erosion indeed. The point is that the belief is such that its acceptance is not gradual or contestable. If the belief is to be removed then its removal will not be imperceptible. Nevertheless, if one takes the essential features of this example, or Morawetz's that, 'George Washington was the first president of the United States', it seems that they are beliefs which rely on the use of terms which Wittgenstein might exclude from his analogy. The concepts of 'first' and 'highest' operate here like those conventions of mathematics or logic. There is no suggestion that the removal of the belief that George Washington was the first president of the United States, albeit a dramatic change in my understanding, will affect my use of the concept of 'first'—the concept of 'first' is not subject to alteration (That is not to say that the possibility is logically excluded).

It was argued in Chapter Four that the insane are those individuals who maintain, in relation to a society, an unintelligible practice, or set of practices. Furthermore, any genuine practice is intelligible. The creative were likened to the insane because in order to produce novelty, or novel ideas, they, as individuals, must produce an unshared practice (i.e act as autonomous individuals, *pace* the social constructionists). In producing an unshared practice the creative produce an initially unintelligible rule or practice. The insane were distinguished from the creative on the basis that society shifts or adjusts its old practice in favour of that produced by the creative—whereas the insane maintain their unintelligibility. Society adjusts its practice to accommodate the initially unintelligible practice of the creative.

Chapter Four established the narrow criteria which are required for declaring someone unintelligible and therefore insane. Clearly not every unshared rule is unintelligible. Bizarre thoughts are not necessarily unintelligible, novel thoughts are not incomprehensible, foreign practices are not impenetrable to our understanding. Even within our own practices we claim to understand those who we disagree with. There are practices which we might not share but yet we claim to understand. Each of these possibilities have thus far been labelled 'potentially intelligible', or 'initially incomprehensible', indicating that by some process it is possible to comprehend those practices which we do not share. The aim here is to demonstrate that the grammatical distinction between the insane and the creative is that a society accepts, somehow, a new rule presented by a creative individual. In this capacity the creative person acts as an autonomous individual: in the sense that the creative individual has

abandoned shared practices, and acts individually, to produce novel ones. It must be made clear what it is about our shared practices (or society's practices generally) which overcomes the difficulty of declaring the creative outside, or beyond, the shared practices of society and therefore unintelligible. The present thesis holds it must be that the creative are autonomous individuals, similar in this sense to the insane, but are intelligible (*pace* Coulter who argues that those who lie outside the social system are unintelligible). It has been suggested that the difference between the two concepts rests with a social shift—society abandons its rule in favour of that which the creative person offers. But if intelligibility is tied to shared understanding, and creativity is produced by a non-shared practice, how is it possible that individuals who act creatively are ever understood?

When encountering a foreign practice we must first establish that it is indeed a genuine rule-governed practice. Chapter Three dealt with the incoherence of the so-called 'private language' which was established to be not a language at all. Rule-governed procedures are normative in the sense that they require something public to provide that application of the rule: a rule does not contain its own application. Some features of the requirements of observed behaviour were identified as indicating rule-governed procedures: learning by instruction, the correction of mistakes, the complexity of the behaviour, etc. Additionally, it has been mentioned that in order to comprehend the new language of a neonate Crusoe his biological capacities must be similar to our own. That is to say, if we did meet an alien culture with really strange ways of going about things, we could not comprehend their language: "If a lion could talk, we could not understand him." (PI, II, p. 223).

The suggestion that society abandons its conception of a rule in favour of a new rule implies that there is some basis for judging the new rule. The reasons why society might abandon a rule in favour of that proposed by a creative individual will be dealt with in Chapter Eight. For now the primary concern is whether it is possible to evaluate an unshared practice. Prior to any acceptance comes some evaluation, or at least understanding. The problem is that it is not as yet clear that we can in fact evaluate the new rules offered by the creative, since *ex hypothesi* they are unshared rules which are therefore not understood.

Empirical evidence has been dismissed as criteria for the assessment of the adequacy of an unshared rule but the value of empirical inquiry has not

been dismissed. We can, it seems, say such things as 'the creative have a higher incidence of mental illness than a group of normals'. Nevertheless the same 'facts' may constitute the evidence for mutually exclusive practices.

Insofar as psychiatric classification of mental disorders provides a grammar for the evaluation of the insane it is possible for alternative explanations of the 'facts'. It is possible to produce an alternative grammar (Disregard for now that such an achievement might be considered creative—I will return to this point later.) Such instances of conflicting grammars occur when we meet foreign tribes who explain the various things, like the regular flooding of a river, in terms of mythology. Or as offered in Chapter Five (pp. 185-187), the tribe that had no concept of addition. Perhaps the foreign tribe consider those with blue eyes to be deviant in such a way as to warrant the ascription of madness and in contrast to modern psychiatry we want to declare such things untenable. Wittgenstein is fond of representing such issues by hypothetical encounters with foreign tribes:

> In a court of law the statement of a physicist that water boils at about 100°C. would be accepted unconditionally as truth. If I mistrusted this statement what could I do to undermine it? Set up experiments myself? What would they prove? (C. §604).
>
> Supposing we met people who did not regard this as telling reason. Now, how do we imagine this? Instead of the physicist, they consult an oracle. (And we consider them primitive.) Is it wrong for them to consult an oracle and be guided by it?—If we call them wrong aren't we using our language-game as a base from which to *combat* theirs? (C. §609).

We know that what counts as evidence for the physicists statement is tied to the practices of physicists in determining what is water, what is 100 °C., how such things are measured, and so on. We consult physicists in exactly the same way the tribe consults the oracle. A tribe of people might suggest that their oracle is the only evidence for ascertaining the truth of a certain proposition. The evidence that I produce would not be accepted as evidence by them. The same situation arose with the tribe with no conception of addition. Without a shared understanding of what counts as evidence for a proposition acceptance by the formally uninitiated will not be forthcoming.

But what of those situations in which we maintain to know what the disagreement is about and yet wish to reject an alternative practice? Such a situation occurs with the prize-winning chemist who is also a devout

catholic who holds to the belief that the communion wine *is* the blood of Christ (C. §239, LFM, XI p. 110). The chemist who is a catholic knows the argument which support a scientific account of the nature of the communal wine but rejects it in favour of his religious beliefs. Or perhaps a chemist confronts a catholic on the issue in order to debate its merits. In the former case the individual participates in two mutually incompatible practices. In the latter, it is assumed that the grounds for believing that the wine is the blood of Christ will be known to the chemist, and the grounds for claiming otherwise will be known to the catholic. If meaning is contained within the use of a term within a practice then surely incompatible practices are simply two different meanings which are mutually exclusive. Similarly Wittgenstein's dispute with Turing as to whether there can be experimentation in mathematics led Turing to propose that Wittgenstein merely used the word experimentation differently:

> Turing thinks that he and I are using the word "experiment" in two different ways. But I want to show that this is wrong. That is to say, I think that if I could make myself quite clear, then Turing would give up saying that in mathematics we make experiments. If I could arrange in their proper order certain well-known facts, then it would become clear that Turing and I are not using the word "experiment" differently. (LFM, XI, p. 102).

Morawetz (1978 p. 129) presents the reasons for Wittgenstein's rejection of Turing's claim:

> Rejection of another's views presupposes understanding. It misrepresents the situation to say that the two mean different things by what they say simply because they have different beliefs and procedures; they share meanings insofar as they share usages. When one affirms and the other denies that *this* is blood, they are using the words in the same way and they mean the same things by them.

Wittgenstein confirms the importance of this insight:

> One of the greatest difficulties I find in explaining what I mean is this: You are inclined to put our difference in one way, as a difference of opinion. But I am not trying to persuade you to change your opinion. I am only trying to recommend a certain sort of investigation. If there is an opinion involved, my only opinion is that this sort of investigation is immensely important, and very much *against the grain* of some of you. (LFM, XI p. 103).

Morawetz's indicates to us that understanding is necessary for the rejection of another's beliefs and yet we know already that unless those practices are shared there is no intelligibility. Notwithstanding this, both the chemist and the catholic share certain concepts (The riverbed of our understanding)—the concepts relevant here are 'wine' and 'blood'. The disagreement between the chemist and the catholic centres on the denial of one anothers' claim to use the terms correctly. This situation is fundamentally different from the assessment of a foreign practice. A foreign practice cannot be judged as 'wrong' purely because they might explain things differently from ourselves, whereas here, as indicated by Wittgenstein's insistence that Turing is wrong in expressing the problem as a difference of opinion, there is, according to Wittgenstein, a way to assess a disagreement and reject a practice.(Think about an everyday explanation of a psychological phenomenon and the reasons a psychologist might reject that explanation in favour of one informed by the methods of psychology.)

Where a chemist and catholic choose to reject one anothers' practice they do so, it can be assumed, from the position of knowing what one another takes to be the way of judging the particular evidence for the respective positions. The catholic understands the chemist's commitment to science but rejects the application of those practices (What the chemist takes to be the 'facts') in this instance because of his belief in Catholicism. The chemist might understand the principles of Catholicism but rejects the 'facts' as presented by the catholic. These contrasting positions might even reside within the same individual. What each party takes to be the facts relevant to the issue are known to one another. What is disputed is a method of obtaining those facts, not the representation of those facts. Each party shares enough common ground (knowledge of blood and wine) to represent their dispute and produce arguments to explore the nature and limits of their disagreement. (Morawetz 1978 p. 129). Of course, the disagreement is not one which can be resolved by empirical inquiry (cf. Chapter Five). Nevertheless, any change of position, either by the catholic, the chemist, or the chemist/catholic who abandons one point of view, involves the adoption of the alternative method of representing the facts. For the individual these conflicting beliefs made be expressed as two ways of acting depending on a surrounding context: whether in church or in a laboratory.

Surely the catholic means something different by his use of the word 'blood' from that which the chemist adopts. Surely Turing is entitled to say that he simply has a different use of the word 'experiment' than

Wittgenstein. But the argument that the two parties to a dispute have different, and therefore unresolvable, usages of the terms of the dispute involves an ambiguity (The ambiguity must be understood if we are to understand the grammar of the concept of creativity). It is true that Wittgenstein and Turing disagree about the usage of the word 'experimentation'. Turing uses it in some circumstances which Wittgenstein would not. Insofar as they have different usages they have different meanings. Nevertheless, when Wittgenstein affirms what Turing denies they both use the term in the same context. The statement, "This is blood" when directed towards the communion wine is denied by the chemist and affirmed by the catholic but they are both using the word 'blood' in the same way (Put neutrally the question: "Is the substance in the chalice blood?" is denied by the chemist and affirmed by the catholic—their usage of the word 'blood' is now forced into being the same usage). Similarly, Wittgenstein declares Turing's dismissal of his argument as being simply two different ways of talking about experimentation to be wrong. In order for Turing to deny what Wittgenstein affirms they must at some point be discussing the same thing.

Disagreement occurs against a shared background of what is being disagreed to. Clearly the catholic/chemist, Turing/Wittgenstein and the Galileo/church (From Chapter Four, p. 153) examples occur within a framework of shared understandings about such things, respectively, as blood, experimentation, earth and sun. If Galileo's eventual success is taken as a creative achievement then we have an example of how creativity is possible given the thesis that the creative are autonomous individuals who participate in contingently unshared language-games. Galileo, putting aside the irony of the example, is analogous to the last surviving catholic in a society dominated by the views of scientists. It is clear that from the background of shared knowledge an individual can present a disagreement with the established norms and remain intelligible, despite the fact that agreement may not be forthcoming from the stoic.

Unshared language-games are not clearly represented by the situation in which parties simply disagree since often the 'facts' representing a duality of representations will not be shared. 'Blood', 'earth', and what constitutes an 'experiment' are all agreed upon in the above examples despite different representations of how those facts are to be considered. There is the possibility that the facts will not be agreed upon amongst two contingently unshared, and therefore initially mutually unintelligible, practices (suppose

the catholic declared the blood of Christ to be fundamentally different from the blood that the chemist refers to). Furthermore, it is conceivable that the creative exercise their ability by adopting not only a disagreement with established tradition but a whole new perspective on the problem and what constitutes evidence for that problem. The example already given is that of the physicist who presents as evidence of his discovery—of what people look like in the dark—a photograph taken with film sensitive to infra-red (Chapter Five pp. 183-185). Such cases may result in the position of the creative who are only subsequently considered creative or those who adhere to the alien practice being unintelligible: "Where two principles really do meet which cannot be reconciled with one another, then each man declares the other a fool and heretic." (C. §611). The artist who presents work which is not even accepted as art until a later period has his work rejected initially not because people disagree about its worth, but because it falls outside what we can consider art at that time. Two things must occur for its recognition: A change in society's conception of art and the reassessment of the work as good. (Obviously, and not accidentally, the two conditions are related).

The situation in which both parties to a disagreement know the reasons for one anothers mutual disagreement is not typical among examples. The creative, it has been assumed, present unheard of (unshared) reasonings for their disagreement with established tradition. While it is recognised that the creative are judged to be creative, in part, *because they offer a new rule or practice which is adopted by society*, there must be a way for we in the society to adopt their usage in favour to our own, without assuming that we know already the creative person's reasonings and judge them acceptable. But herein lies the ambiguity within the, anachronistic, Wittgensteinian response:

> What we believe depends on what we learn. We all believe that it isn't possible to get to the moon; but there might be people who believe that that is possible and that it sometimes happens. We say: these people do not know a lot that we know. And, let them never be so sure of their belief—they are wrong and we know it.
> If we compare our system of knowledge with theirs then theirs is evidently the poorer one by far. (C. §286).

The anachronistic nature of the example is useful. Suppose I meet a group of lost soldiers and scientists on a hitherto unvisited island in the pacific. They have survived on the island since Wittgenstein's time totally

unaware of the changes in technology. They might have been a special group of scientists and soldiers collected together during World War Two for their engineering and research skills into aeronautics and engineering. By some oversight of their government they are left abandoned, their contact from the outside world cut off to ensure secrecy. Suppose I have just plummeted to earth in a space capsule after my mission to survey the lunar landscape. I make the claim to these people that I have just visited the moon. They suggest that I am mistaken since they claim it is impossible and that I must be acting out some deception to serve the purposes of the enemy. In such cases I hold that these people do not know a lot that I know. I reject their claims because I can encompass them within mine but I do not expect that they will be able to comprehend, or encompass, my explanation of events within their own representation of the 'facts'. Despite their best efforts to convince me of the poverty of my conceptualisation of events, that for instance, it is impossible to break the sound barrier without an aircraft disintegrating, I hold firm my belief and reject theirs.

If the scientists met with a group of people from a local tribe who claimed to fly to the moon and back in their dreams (C. §106) they would be in a position to declare that the tribe has no conception of physics and aeronautics (C. §667). They would understand, and reject that practice, despite the tribespeople not accepting, or even understanding, their explanation of the impossibility of their tribal belief system. Wittgenstein insists that "They [the tribe] are wrong and we know it." (C. §286). Yet, with the benefit of knowledge obtained after Wittgenstein wrote this argument, we know that Wittgenstein's claim is wrong. I know that it is possible to put a man on the moon(Albeit not by dreaming C. §117), that there are men who have been there, that there are three golf balls and an American flag still there. From this position it is fair to claim that both the scientists on the island and the tribe are wrong in their beliefs. I know that both the beliefs of the tribe and the beliefs of the scientists are wrong. Notwithstanding this, the scientists are still correct in declaring the tribes people wrong in their belief, despite wrongly believing that it is impossible to reach the moon(Thus the ambiguity).

Both the scientists in the example and a person with the knowledge that mankind has visited the moon are certain that a tribe of people who believe that they can fly to the moon and back in their dreams are wrong. The examples are not intended to establish a hierarchical ordering of knowledge. It may not be the case that unshared, foreign, or ancient beliefs

are poorer than our own. The catholic vis-a-vis the chemist may be right (Morawetz, 1978 p.132). Each group, the scientists, the tribe, and a person of present day knowledge (say an astronaut), rejects one another's evidential claims. The tribe rejects the claim that it is possible to get to the moon without being asleep and dreaming, since they suppose, the moon is the hole in the night sky where we pass through to the dreamworld. Both the scientists and an astronaut claim that the moon is a physical object far away and dreaming has nothing to do with transportation of my being. The scientists claim that technology has not enabled man to get to the moon, nor could it. The astronaut claims that modern technology has enabled mankind to get to the moon, so the scientists' claim otherwise is false.

It has been argued that the relationship between a method of representation and evidence is internal. Grammar is autonomous and not responsible to the facts. Stated baldly the claim "There is no such thing as a *wrong* or *false* method of representation" (Baker and Hacker, 1985 p. 293) seems to militate against Wittgenstein's insistence that the tribe is wrong, and that we know it. Surely the tribe, the scientists, and the astronaut, all have different forms of representation. If Baker and Hacker are correct in their interpretation of Wittgenstein then there is here a clear contradiction. Wittgenstein was aware of this problem:

> Now one can offer counter-examples to all this, which show that human beings have held this and that to be certain which later, according to our opinion, proved false. But the argument is worthless. To say: in the end we can only adduce such grounds as *we* hold to be grounds, is to say nothing at all.
> I believe that at the bottom of this is a misunderstanding of the nature of language-games (C. §599).

My form of representation gives me certain facts about the world. It is, trivially, my form of representation and the only thing available for the assessment of other practices. An astronaut can use his form of representation to explain to himself, and the scientist, why he rejects the beliefs the scientists hold. Similarly, the scientists can interpret the beliefs of the tribe within their method of representation. But the reverse need not apply. The scientists may not accept, understand, or even find intelligible the evidence of the astronaut. The tribe may not understand the scientists.

Surely the scientists have no right to confidently assert that they are correct in their belief that it is impossible to get to the moon since as we know it is

possible. Are they simply using their language game to combat that of the tribe?

> And are we right to combat it? Of course there are all sorts of slogans which will be used to support our proceedings. (C. §610).
>
> I said I would 'combat' the other man,—but wouldn't I give him *reasons?* Certainly; but how far do they go? At the end of reasons comes persuasion (Think what happens when missionaries convert natives.)(C. §612).

The reasons offered to reject another way of thinking go only so far as they are understood by the other party. But it has already been established that the tribespeople may not understand the reasons of the scientists although the scientists can understand the tribe's reasons for their position. But it is possible to *teach* the tribe, just as it is possible for the astronaut to teach the scientists (C.§ 111); that is update the scientists about the discoveries which led to spaceflight. Why is this method of instruction labelled 'persuasion' by Wittgenstein?

When encountering a divergent practice it is one's own form of representation which serves to measure the adequacy of the conflicting practice. Practices which are rejected are dismissed on the criteria which are held within one's own practice. There is nothing external to one's system of representation which is available to measure the adequacy of conflicting practices. In earlier chapters the same point was made with respect to any individual rule: nothing mediates between a rule and its extension. Whilst there is nothing external to one's practice which enables some universal comparison of divergent practices it is still possible to represent another's position within one's own practice and then subject it to the criteria which might establish its adequacy or provides reasons for its dismissal (Examined in Chapter Eight). Converting someone to a new position involves something more than offering new evidence (C. §130). What is taken as evidence may not be shared. The conversion takes place only when the method of representing the evidence is adopted by a party—since this involves adopting a new form of representing the 'facts' or evidence are irrelevant to the change. What is left is something beyond the facts which might explain the shift; this something Wittgenstein labels 'persuasion'.

Wittgenstein describes cases in which our certainty is bound by our whole method of representation (C. § 117). The veracity of a proposition is related

to the circumstances of its employment and the method of representation which lends it support.

> My name is "L.W." And if someone were to dispute it, I should straightaway make connexions with innumerable things which make it certain. (C. §594).
>
> "But I can still imagine someone making all these connexions, and none of them corresponding with reality. Why shouldn't I be in a similar case?"
> If I imagine such a person I also imagine a reality, a world that surrounds him; and I imagine him as thinking and speaking in contradiction to this world.(C. §595).

It was established that a grammar provides the correctness of the correspondence between our concepts and the world. Our calendar is simply one 'possible-ordering' of time and date calculations. Perhaps it is the wrong ordering? But who or what is it to say such? What is 'wrong' and 'right' is licensed by the grammar. To say of someone else that none of their claims match with reality is to imagine, from one's own perspective, what it is that this person's representations do not attach to—judge from within one's own form of representation what is correct and incorrect. In order to comprehend what it is that does not attach itself to reality one must *interpret* or *share* a grammar which tells one what the facts actually consist of.

I cannot know that I am in a similar situation to the person who makes claims which do not correspond to reality, whether or not I interpret their claims within my own, since that would involve stepping outside my own form of representation. To make the judgement that all of my own representations do not connect to reality presupposes that I can doubt all of my beliefs. It has been established that in order to assess another's beliefs one must already possess some standard in which the interpretation of the others beliefs is possible (Otherwise the divergent beliefs would be unintelligible). My form of representation is the standard which allows me to interpret and reject anothers practices: what is correct and incorrect is determined from within my form of representation. As Morawetz points out:

> The question whether one's own point of view *ought* to have this role is really the nonsensical question whether what I call judgement and evidence are really judgement and evidence (1978 p. 133).

It is true that others, such as the scientists, or the tribespeople, might view my claims as unintelligible, or not in correspondence with the facts, but this does not lead to the consequence that, "I ought to subject my own ways of proceeding to the same kind of scrutiny and evaluation as I do the claims of others." (Morawetz, 1978 p. 134). My own form of representation is not subject to the same doubt as the claims of others, as a consequence it becomes the universal measure of other practices.

From this position empirical judgements are such that they produce faith in the system of representation. Of course evidence can be produced which will 'buck the system' but recalcitrant experiences merely diminish faith. To abandon a grammar and see the world in a new light is to already adopt a new one. I cannot say that my system of representation is wrong, or right, (I cannot step outside my judgments to make new ones: that would be like trying to calibrate a ruler by measuring objects of unknown length.) but I can, according to Wittgenstein, use my system of representation to judge other practices provided those practices can be interpreted *within my system of representation*. When others adopt my system of representation they abandon faith in their own and gradually accept a new way of looking at things. Converting someone to adopt a new position is a matter of persuasion since the evidence for a grammar is internally related to that grammar. I can reject positions which I can encompass within my own methods of representation, but I cannot reject my own method of representation. Even bizarre experiences such as "..houses turning into steam without any obvious cause"(C. §513) or cattle in the fields standing on their heads, men turning in trees and vice-versa, (C. §513) only diminish faith in your system of understanding—they might well overthrow it but in such an instance you have abandoned your method of representation, in the interim you can make *no sense* of the world, but sense returns with a new method of representation. I may come to order events myself, as in the case of awaking in strange house confused as to your whereabouts, or I might rely on the judgement of others. To be turned to a new method of representation I must be persuaded to abandon my own. I cannot doubt my own representations by stepping outside them.

Who is it that stands aside (act as autonomous individuals) from what they have been taught in order to guide us towards a better method of representation?—The creative. The concept of creativity, regarded as applying to autonomous individuals, suggests that certain individuals abandon a form of representation (as must be possible—see Chapters Two

and Three) to form a *potentially intelligible* representation of the world since it can be interpreted within the shared form of representation that a community (for example) possesses. While both the concepts of insanity and the creativity share the grammatical feature of applying to autonomous individuals it is clear that the insane do not produce a novel grammar when they abandon a shared practice since it has been argued they break, rather than abandon, the shared rules (moral, social, *and* grammatical, *pace* Morawetz) of a community.

> Any new interpretation of nature, whether a discovery or a theory, emerges first in the mind of one or a few individuals. It is they who first learn to see science and the world differently, and their ability to make the transition is facilitated by two circumstances that are not common to most other members of their profession. Invariably their attention has been intensely concentrated upon the crisis-provoking problems; usually in addition, they are men so young or so new to the crisis-ridden field that practice has committed them less deeply than most of their contemporaries to the world view and rules determined by the old paradigm. (Kuhn, 1962 p. 144).

Individuals *see the world differently*. Autonomous individuals, those who do not share the standard practices of those whose 'world view' they reject, are those who are responsible for creative insight and 'paradigm shifts'. Perhaps someone might object that we can, and do, give the ascription to more than one person who together make a change in our shared form of representation. Surely Watson and Crick discovered the secret of the double helix and together provided a new way to view the nature of genetic material. But it is irrelevant that such examples can be produced since either Watson or Crick first had the idea and converted, easily, the other to the new position. Even if by chance both Watson and Crick had been struck with the idea at the same time they would together have a novel idea which must have then been presented to those unconverted to their way of thinking. Relative to the society which eventually accepted their idea they had a contingently unshared practice—they would be intelligible to each other but, initially, unintelligible to the community that regarded them as creative. *Philosophically* it is irrelevant to the conceptual clarification of creativity that such examples occur.

The claim that individuals are creative is an empirical claim supported by the grammar of autonomous individuals developed in Chapter Four. If it is correct to regard the concept of creativity as being an encompassed by the

notion of autonomous individuals then it follows that it is individuals who are subject to the ascription of creativity. From the point of view of psychology it is immensely important that creative achievements normally are attributed to an individual's effort.

It is a precondition of the social ascription of creativity that it applies to individuals. The explorer who discovers a lost tribe in china who happen to have the cure for cancer does not act creatively when she brings it back to our world—she has made a discovery. The medical researcher who expands our understanding of the nature of biology which orients us in new ways to the functioning of cells and leads to the discovery of a cure of cancer does act creatively. In the former condition *a group* of individuals share knowledge which we do not have. In the latter, an individual within a shared tradition alters our conception of medicine by first abandoning the shared practice which orients her to evidence: the new evidence is gained by abandoning the shared considerations of what constitutes the functioning of cells. We might, of course, learn the history of the Chinese tribes' medical practices and interpret it within our own and then regard the Chinese individual responsible for the discovery of the cure for cancer as being creative. We do not regard the whole tribe as creative for contributing the medical discovery.

If history had shown us otherwise we would need to engage in a far more complex inquiry into the nature of the concept of creativity involving a greater influence of social psychology and sociology since the investigation would involve some understanding of the relationships between discoverers and the society that gives this ascription. This is not to suggest that social psychology and sociology are not important but that they offer a different sort of investigation. The normal use of the concept of creativity applies to individuals. If by 'creativity' we meant something other than what has been clarified in this chapter and in Chapter Four we would have altered our ordinary conception of creativity: philosophy would have interfered with language (Discussed in Chapter Eight).

Conclusions

Encountering novel practices, either within a social group or outside, by meeting a foreign tribe or assessing someone as creative or insane, occurs within practice which has certain logical (not psychological) features. We

must orient ourselves to divergent practices *using our own form of representation*. This form of representation is universally applicable to all bizarre, novel, creative, irrational, and unshared practices. It is from within our form of representation that we make such ascriptions. It is logically impossible to step outside one's own form of representation to independently assess divergent practices or one's own form of representation since the rules for the assessment of practices are internally related to the criteria accepted in that assessment.

The creative abandon a shared practice to produce a novel (relative to the shared practice) representation of the world. *Ceteris paribus* unshared practices are unintelligible. The shared practice can use its form of representation to interpret and reject, or accept divergent practices. The problem of viewing all contingently unshared practices as being uniformly unintelligible has been met. Only those practices which cannot be interpreted within the shared practices form of representation are unintelligible. It was argued in Chapter Four that the concept of insanity must be representative of those who break the rules of the shared practice. In doing so the insane preclude any chance that the shared practice can accommodate their novel acts—The concept of insanity represents those who, for whatever reason, undermine the chance of a shared practice using its conceptual orientation to interpret the insane person's: by breaking the shared rule, rather than abandoning it or being contingently unshared, the insane preclude the possibility that a shared practice can use its criteria of assessing the intelligibility of the novel act concerned.

Thus the grammatical distinction between the creative and the insane offered at the end of Chapter Four has been explained. The creative can act as autonomous individuals and be understood—unlike the insane. The adoption of the creative insight by a shared practice is logically equivalent to the assessment of all other divergent practices which are contingently unshared. A society must be 'persuaded' to change its conceptual orientation: that is adopt a new form of representation. The *reasons why* a shared practice might adopt a new practice have not been explained. This is largely the task of the following two chapters. One possible reason has been dismissed from consideration. Empirical evidence cannot in principle be used to assess the adequacy of a divergent practice.

Chapter Seven

Conceptual Change in Psychology and the Psychology of Conceptual Change

A Call for Change: The Reinterpretation of Social Psychology

Conceptual change (a change in grammar or world view) is grammatically connected to the concept of creativity—those who produce conceptual change convert us to a new world view and are therefore candidates for the ascription of creativity. Psychology does not have a *method* to produce conceptual clarification; no empirical study will reveal a perspicuous representation of a conceptual problem. But surely a grammar must be formed on the basis of evidence? Surely new evidence, or experiences, will produce a new grammar? It has been argued that such questions are difficult to answer and rely on much examination of the conditions from which it is possible to produce evidence, reject a grammar and accept a new method of representation. What I take to be evidence of a particular proposition may not be shared, or even intelligible to others who adhere to a different form of representation. Others need not share my understanding of evidence. My conception of evidence is internally related to my grammar, my rules for the use of propositions, my method of representation, or as Wittgenstein puts it my 'world view', or 'weltanshauung'.

Harré (1989a) calls for a reinterpretation of psychological research within cognitive psychology. Unlike Shotter (1991), and Williams (1985), Harré recognises that the introduction of Wittgenstein's philosophy into psychology need not alter our actual practice of experimentation—except for the claim that: "There are not really any psychological experiments, that

is manipulations, in controlled conditions, of an autonomous entity, *the mind.*" (1989a p. 444). Harré does not repudiate the actual practice of experimentation, his aim is to undermine the assumed ontological commitments of cognitive psychologists and other programmes in psychology. Harré supposes that the experimental results of cognitive psychology should be reinterpreted within a dual ontology which recognises only social and physical realities and does aside with anything which might model the mental: since for Harré the objects of 'mental discourse' do not literally exist within the 'mind' of the individual (Where 'mind' is conceived as some entity). Thus Harré (1989a) declares that:

> ...the results of many psychological investigations are a kind of muddled melange of the two different kinds of results differentiated above...studies of emotions which purport to give us an account of the conditions under which certain kinds of emotions can be felt or the way in which the people work to elicit the emotions of others, will issue in fragments of physiological knowledge, obscurely expressed in psychological terms. Other fragments of the results will actually be contributions to our grammatical knowledge of how discourses employing emotion concepts, in the broadest sense, are put together (p. 444).

Harré's concerns were illustrated in Chapter Five. The idea that psychological experimentation can contribute to the resolution of conceptual problems was rejected. Wittgenstein's contribution to this was outlined. Psychology, in principle, cannot advance any conceptual clarification since experimentation presupposes the adequacy of the concepts under investigation. Notwithstanding this, experimentation within psychology was accepted as a legitimate practice in psychology: it is what distinguishes psychological explanation of events from an everyday understanding of the world.

Williams (1985) maintains that Wittgenstein ruled out the possibility of scientific psychology. In particular William's claims:

> Wittgenstein rejects the possibility of a scientific psychology; that is, any theory that purports to explain behaviour in terms of inner mental causes...causal questions can, of course, be raised, but these are not inquiries into the psychological causes of behaviour. In other words, on a Wittgensteinian view, there are the brain sciences but not the cognitive sciences." (p. 205).

But Williams relies on a narrow conception of psychology. 'Cognitive sciences' were not even fully developed in Wittgenstein's time, and his

inquiry into the nature of psychology went further than simply the repudiation of the Cartesian doctrine on which cognitivism rests. Behavourism would not be covered by Williams' characterisation of psychology and yet Wittgenstein thought it also to be thoroughly confused. Unlike Harré, Williams suggests that Wittgenstein's considerations for psychology are pessimistic (Williams, 1985 p. 203). But what is overlooked by Williams are the possibilities apparent within the practices of psychology. While it might be accepted that a cognitivist perspective is misguided, this conclusion in no way rules out, in principle, the possibility of a scientific psychology. Harré demonstrates the possibility of presenting alternative conceptual frameworks within which the practices of psychology can advance. Williams' mistake is the failure to appreciate Wittgenstein's perspective of the nature of philosophy: to regard Wittgenstein's position as one which could anticipate every avenue of inquiry which a psychologist might turn his or her attention to. Harré recognises the importance of adjusting, not our (psychologists') practices (For example, the actual act of experimentation) but our orientation to our practices. Harré is content to dismiss only some orientations to the study of psychological phenomena, not all practices employed within psychology.

On Wittgenstein's account philosophy does not have a means of conceptual development. 'Philosophy may in no way interfere with the actual use of language' (PI §109) "Because it is not our business to modify it, to introduce (in the way it is done in the sciences) one which is adequate to certain purposes; our business is that of coming to understand it, that is, not to draw a false picture of it' (MS 137, 9.2.48 cited in Schulte, 1993 p.19). The task of philosophy is to clarify conceptual problems.

Wittgenstein came to view philosophy as descriptive rather than explanatory with the recognition that such a view established a break from traditional conceptions of the nature and purpose of philosophy, and that his view, "...was not merely a stage in the continuous development of the subject, but a new subject." (M, p. 322 cited in Hacker, 1986 p. 146). Of particular importance here is the conception of philosophy as continuous with that of the natural sciences. It was held by Russell that philosophy's task was to build and, "...construct theories which described the most general features of the universe." (Hacker 1986 p. 147). Wittgenstein's view of philosophy opposes the view that philosophy can provide a foundation for any other discipline since it cannot produce fundamental truths, for this would involve the construction of something about the nature of the

concepts employed within the practice of science. Consequently, according to Wittgenstein, philosophy is no closer to mathematics than it is to psychology, physics or any other discipline.

Wittgenstein's early work, *The Tractatus Logico-Philosophicus*, was an attempt to establish a conception of language as a calculus. Wittgenstein always maintained, *pace* Russell, that philosophy is not continuous with science, that philosophy could not construct theories or refute hypothetical claims made by scientists (Hacker 1986). Wittgenstein viewed his early work as laying bare the logical requirements of any possible language. Philosophical confusions arise out of our misunderstanding the reality of our language as it is expressed in science and philosophy. Philosophers assert nonsense because they fail to command view of the logic of our language. Wittgenstein took from Hertz (1899) the view that science, in this case physics, produces a picture of the world which is simply a possible ordering of the facts. Scientific conjecture was merely a possible-ordering of events. Philosophy, however, cannot allow hypotheses or probabilistic statements, since this would defeat the task of producing *the one ideal form* which is required for any language. The result is that science and philosophy are different.

We know that Wittgenstein abandoned his attempt to articulate the logical essence of language. Wittgenstein found increasing difficulty in establishing his distinction between *names* having *meaning* and *propositions* having *sense*. (Finch 1977 pp. 5-6). He found an increasing need to place the context in which words were used into their sense. He was forced to broaden his conception of sense until the notion of an elementary proposition (A naming relation between object in the world and that name) was itself abandoned. Thus the meaning-sense distinction evaporated and the purpose of laying bare the logical relation between the sense of language and the underlying meaningfulness of names representing objects in the world was lost.

Russell misinterpreted Wittgenstein's *Tractatus* as an attempt to elucidate the structure of a 'logically perfect language' (Monk, 1990 p. 216). One of the central tenets in both Wittgenstein's 'early work' and his, so-called 'later work' is that:

> ...thought, language and the world must, in some way or another, go together at the very outset...There must be something which, in some way, belongs to all three; and this is *logical structure* in

> the *Tractatus* and *grammatical criteria* in the *Investigations* . (Finch, 1977 p. 4).

Rather than viewing ordinary language as vague and inadequate, Wittgenstein contends that it is perfectly acceptable for its purpose of conveying thought and meaning. The task of philosophy, from this early viewpoint, was to, "...make explicit what is actually present in ordinary language" (Hacker, 1986 p. 22). Wittgenstein conceived his task as reconciling how it is that language is at all possible, if ordinary language were imperfect—not capable of expressing thought or conveying meaning—then Wittgenstein's purpose would have been defeated from the outset.

The original plan of devising the structural form of language in the *Tractatus* was intended for philosophical purposes (Hacker, 1986 p. 17). The task might be summarised as a plan to offer the limits of sense—what is, and is not, a legitimate proposition within a language. The rationale of providing such a structure in the *Tractatus* comes from dealing with *all possibilities* . But possibility was limited to the conditions in which it could be said that any proposition (or its constituent parts) could be said to be true or false. A proposition acquired meaning by mirroring possible facts (Worthington 1988). Statements of logic acquired no meaning, since they say nothing about the world but, despite lacking meaning were not nonsense, since they demonstrate a structure for legitimate combinatorial possibilities of meaningful statements; they provided the sense of meaningful propositions. Thus there was a distinction between *sense* and *meaning*. Propositions make sense if they accord with the logical possibilities. Philosophy, on this early view, outlined frameworks devised to elucidate the structure of any possible language—such as Frege's and Russell attempts, found inadequate by Wittgenstein and replaced by the *Tractatus* (Hacker 1986).

The completion of the task, if it had been successful (Wittgenstein thought he was successful, that he had solved all philosophical problems, and subsequently quit philosophy) would have enabled philosophers to clarify the problems of philosophy which Wittgenstein contended arose from trying to *say* what can only be *shown*. (Hacker, 1986 p. 22). Since a 'clear conceptual notation' (Later the desired goal was considered to be a 'perspicuous representation' PI §122) would describe all those things which can be legitimately stated about the world, when philosophers tried to assert

propositions which violated the bounds of sense laid down in the conceptual notation, they did so by asserting that parts of the conceptual notation were in themselves meaningful. Genuine proposition assert something about the world, and fall into the realm of natural science, but the questions of metaphysics, ethics and aesthetics provide no propositions to match to reality, they are therefore, on this view, nonsensical questions. Hacker (1986 p. 24) argues from this position:

> If someone, trying to describe essences, endeavours to use 'is a number' or 'is an object' as predicate expressions, one must point out that as substitution-instances of predicate variables, these signs have been given no meanings. They are signs for variables, not names.

What 'is an object' is revealed by the combinatorial relations of the conceptual notation. Genuine propositions reveal their logical character along with what they claim about the world. The task then, on this view of the philosophers role, is to lay down the structure of language which describes the world, then the proper conceptual notation will reveal perspicuously the true nature, the essence, of the world.

Shotter (1991) contends that mainstream modern psychology, and he picks out cognitive science as his target, still views the nature of language from a Tractarian-type perspective: "...we always think that words must have stable, unequivocal, already determined *meanings*. But in the openness of ordinary everyday life, in comparison with the world of logic, this is precisely *not* the case." (p. 200). Wittgenstein's later philosophy offers an alternative view of language, already presented throughout this thesis but specifically in Chapter Two, summarised nicely by Shotter as acquiring its character through, "...its role in communication—it is used within certain, circumscribed ways, within the confines of certain language-games" (1991 p. 193). Shotter presents the arguments, in broad agreement with this thesis, that Wittgenstein's arguments offer, "good reasons for thinking that the current 'cognitive' orientation in psychology is radically misconceived..." (p. 194) but concludes:

> ...that understanding the nature of mind is *not* simply a 'scientific' matter of 'discovering' its properties, but *is* a moral and a political problem, to do with how we *should* relate ourselves to one another...(p. 207).

Furthermore, the conclusion above is:

> a radically shocking claim and *unassimilable to psychology* in its current guise as a modern science (p. 207). (Emphasis mine).

But what is 'modern scientific psychology'? Is current mainstream psychology really characterised by 'cognitive psychology' or is this a description we (and here I mean philosophers) give to certain *practices* which occur within the *practice* of psychology? Does it follow from the rejection of those practices which we describe as 'cognitive oriented psychology', that all of the practices of psychology need to be rejected, or radically altered? Philosophers and psychologists who have adopted Wittgenstein's arguments and perspectives on the nature of language in the *Philosophophical Investigations* seem always to overlook the fact that Wittgenstein offered similar arguments to reject particular perspectives on the nature of mathematics, but did not radically alter mathematics, or change it in any way. There is no new Wittgensteinian mathematics, why should anyone suppose that there is a new radically altered psychology in the light of Wittgenstein's investigations? What is confused within Shotter's account of 'psychology-after-Wittgenstein' is the relationship between psychology and philosophy. Such attempts to reject modern psychology occur primarily because one adopts a particular view of psychology, without incorporating the possibilities already present within the practice. (cf. Williams, 1985). Thus Shotter presupposes that the practices of cognitive psychology exhaust modern psychology neglecting the purpose of Wittgenstein's method: to relieve us of our entanglement in language so that we might proceed unhindered.

Psychological theory often becomes entangled within language: as has been argued with reference to the explanation of psychological predicates within the cognitivism and more specifically the concept of insanity within social constructionism. But the clarification of a problem, a clear view of language, is not the solution to the problems which confront psychology; it is merely the beginning. Philosophy, it is meant here Wittgenstein's conception of philosophy, allows an arrangement of language so that everything becomes clear so that some problems disappear within this ordering. Knowing the grammar of creativity does not resolve important issues as to how it might be studied. Although we know creativity can be studied. The gathering of empirical evidence is not problematic grammatically—there is no philosophical objection to claims such as:"The creative, as a group, have a higher number of reported instances of mental

illness, amongst themselves and their relatives, than normals." (Chapter Five pp. 185-192).

Wittgenstein admits that in science grammar is "modified, or introduced,....[for] certain purposes." (MS 137, cited in Schulte, 1993 p.19). Since psychology is not involved purely in the clarification of conceptual issues it has, on Wittgenstein's account, the option of developing theory, or grammars, which can account for empirical regularities of our (psychologists') world view. Even theoretical psychology is not simply grammatical clarification, since theoretical psychology involves the development of conceptual structures within which evidence and empirical regularities are explained. Theoretical psychology is not philosophy. Theoretical psychology undertakes conceptual development, philosophy undertakes conceptual clarification.

When theoretical psychology makes so-called conceptual developments, they are open to philosophical inspection on the basis of how the terms of the theory are used and whether or not they are used in ways which accord with the way they are described by the theory. Chapter Two dealt with this problem. It was argued that cognitivists could rightly declare that thinking does not mean "a causal process in the head" but might do in the future. 'C-Fibre firings' might be what we use to describe 'thinking' in the future. They might insist that any Wittgensteinian attack about how language operates in a context now cannot predict future use—indeed their proposed future use is invulnerable from Wittgensteinian critique since Wittgenstein declares that his brand of philosophy deals with conceptual clarification of actual use. But while a change in the grammar, which is unpredictable (Hacker, 1986 p. 178) must be accepted as possible, the possibility cannot be used to dismiss the Wittgensteinian arguments which deal with the actual use of terms within theory as they are presented—in the case of the cognitivists it was their conception of rule-following and calculation which offends actual use. Calculation does not mean some mechanical or causal process, to suggest that meaning might change is to accept the normative nature of the meaning of terms, thus contradicting their own thesis and leaving the onus of establishing why the Wittgensteinian objections to their thesis do not stand.

Although cognitivists cannot dismiss the Wittgensteinian arguments with the claim that actual use of terms may change (Note the similarity to the situation in which Turing declares he and Wittgenstein are using the word

'experiment' differently[16]), it is conceded that language-games, grammar, or in a limited sense of what Wittgenstein addresses, theory, change across time. Psychology, and in particular here I mean theoretical formulations within psychology, can produce new terms which account for particular problems. Philosophy, on Wittgenstein's view cannot build conceptual structures, because:

> To come to understand our most basic concepts, which in Wittgenstein's view is an important part of the philosopher's task, is possible only if the concepts to be understood are not modified, For otherwise one would no longer be dealing with the concepts originally intended. (Shulte, 1993 p. 19).

But is psychology in a similar position to philosophy? After all Wittgenstein is quite clear when he states:

> Psychological concepts are just everyday concepts. They are not concepts newly fashioned by science for its own purpose, as are the concepts of physics and chemistry. Psychological concepts are related to those of the exact sciences as the concepts of the science of medicine are to those of the old women who spend their time nursing the sick. (RPP, II, §62).

Budd (1991) draws from the above the conclusion that Wittgenstein thought all psychological terms are strictly everyday terms. However, the point overlooked by Budd is that what is important for theoretical psychology is not the use of psychological concepts in everyday language *but their use within psychology* (This is further explained in Chapter Eight pp. 240-258). The point Wittgenstein is trying to get at is that psychological concepts have a complexity and ambiguity which cannot be removed by operationalising them. But operationalising a concept and imparting a technical use are two different types of adjustment to ordinary language. In physics, a concept can capture the circumstances in which it is employed. The use of psychological terms cannot be described easily, whereas in physics, the use of a technical term may be surveyed and its limited use revealed. Psychological concepts are vague and ambiguous like the concepts of everyday language, any attempt to provide a clear definition of their use in psychology would be to rob these concepts of their ability to capture the variety of situations in which they are used.

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16 The suggestion that the meaning of psychological predicates will change across time is the same as the claim that cognitivists are simply using the terms differently from those Wittgensteinians who attack their use of terms in comparison to present usage.

Wittgenstein comments that if it were the case that instead of using an everyday term in psychology we employed a variety of technical terms to replace all uses of one psychological term then:

> Perhaps the concepts of such a language would be more suitable for understanding psychology than the concepts of our language. (PI §577).

Budd (1991 p. 7) suggests that Wittgenstein seemed to hold no interest in this task. This can be of no surprise. The task is not the job of a philosopher but of a theoretical psychologist: On Wittgenstein's view, at least, psychology advances conceptual development; philosophy is involved in conceptual clarification.

Physicists and chemists do not normally check their use of terms with philosophers in order to make sure their theory does not offend any grammatical boundaries. Physicists have a clear view, a perspicuous representation, of the concepts they employ; they forge those concepts within theory for restricted purposes. Suter (1989) points out:

> Someone may object: But what about terms like "electron," "atom"? Don't we have to look to science instead of examining our language to increase our understanding of such notions? Wittgenstein might answer that if we want to get clear about these words and concepts, we have to examine their use in language. But that, of course, means seeing how they are used in the sciences, since that is where these terms are mainly used. So technical terms do not constitute a counterexample to his [Wittgenstein's] approach. (Suter, 1989 p. 15).

Social Constructionists who wish to examine language in social acts seem to confuse the role of technical terms and everyday terms. Consider Harré's proposal for social psychology:

> The centrality of language-games in the living out of a form of life implies that we manage our lives relative to certain linguistic resources. The job of psychology oriented in the way social constructionism goes is to try to discover what those linguistic resources are and how they are deployed. (Harré, 1989 p. 170).

But what is overlooked here is the fact that psychologists may impart a technical significance to an everyday term. The way a neurophysiologist uses the term 'addiction' may be very different from the way a layman might use the term. Similarly the concept of 'insanity' is used differently in

psychology, law, and in everyday exposition. The problem is not particular to psychology:

> ..."force," "energy," "charge," "space," "time," "particle," "attraction," "motion," "spin," and so on. despite the fact that these words are drawn from everyday language, Wittgenstein does not criticize physicists for misusing them because their use of them diverges from the way these words are used outside of physics. Why then does he insist that "Philosophy may in no way interfere with the actual use of language" (PI,§124) and that philosophers should attend only to the actual use of such words outside philosophy?(Suter, 1989 p. 17).

The answer to Suter's questions has already been partly explained—Wittgenstein ventured that philosophical questions arise out of the misunderstanding of our language (Chapter Six pp. 193-211). Although in answering his own question Suter makes an important error:

> ...there is no standard agreed-upon philosophical use of words like "good," "know,'" "experience," "guilt," and so on. The situation is quite different for corresponding terms in physics that are drawn from everyday language. Words like "force," "energy," "charge," and so on have agreed upon-upon technical uses; physicists don't argue with each other on how these terms function in physics. They also know that their technical uses of these terms differ from their ordinary uses outside physics. (p. 17).

While it is accepted that in physics there is a technical use of everyday terms there need not necessarily be any widespread agreement in technical usage. There have been times when the technical usage of terms in physics has promoted widespread disagreement. Nevertheless, the relative stability of physics to other disciplines may tempt us to believe that it is this general agreement over technical usage makes these terms somehow immune from philosophical inspection. And in disciplines like psychology where disagreement over the technical use of everyday terms is common, that this disagreement can be removed by a conceptual clarification of these terms as they are used in everyday language. Nobody, for example, would try to determine a physicist's notion of time by asking people in the street what they consider time to be (One would probably get different answers as the day progressed). But we are tempted by the variety of technical uses of terms in psychology to seek clarification in our everyday language.

The fact that people in everyday life use concepts differently from that used in science is irrelevant (Chapter Eight explores this further). The

astronomer's concept of day is different from my own. 'Addiction' in psychology is distinguished from compulsion to do an action habitually. Neurophysiologists refer to such things as receptors to describe what they mean by 'addictive' in respect of some psychotrophic drug. Perhaps, it could be argued, then 'addiction' belongs to the science of medicine and not psychology. Psychology is left the impossible task of explaining the vague an indefinite concepts of everyday language: a task made impossible by the arguments which repudiate the view that there is any essence to the terms of language (The Tractarian view) and seemingly impossible under Wittgenstein's characterisation of meaning being derived through practices which are vague and indefinite. As Shotter (1991) argues: "...everyday human activities do not just *appear* vague and indefinite because we are still as yet ignorant of their true underlying nature, but... they are really vague." (p. 202).

If psychology really is analogous to the 'old women nursing the sick' then it is because its *methods* cannot provide conceptual *clarification* and relies on everyday exposition of terms to found its research—in the same way the methods of the nurse do not diagnose the sickness. An example of this problem has already been given. Schachter's work on psychopaths relies on a conceptualisation of psychopathy drawn from psychiatric diagnosis (Chapter Five pp. 177-181). Hacker (1986 p. 157) states the problem clearly:

> Advances in science cannot *in principle* resolve philosophical problems, for the sciences either employ, and hence presuppose an understanding of, the very concepts that give rise to philosophical perplexity; or they employ different concepts in which case they bypass what puzzles us (and even cheat us out of our puzzlement) and, in some cases generate fresh conceptual problems.

If the problem which puzzles us philosophically is that which Szasz (1987) raises, whether or not the term 'mental illness' (More appropriately here 'psychopathy') has any clear application, then Schachter's attempts to find some basis for a particular disorder will not resolve any conceptual problems. Schachter relies on the conceptual articulation of psychopathy to found his research, and this presupposes what it is that worries us philosophically. Suppose psychiatry adopted Schachter's work and proclaimed all psychopaths to be simply 'autonomically reactive', then we have been cheated of the philosophical concern. Now there really is a clear application of the term psychopathy: it means that an individual is

'autonomically reactive'. Szasz would be cheated of his concern since now there is no way to feign the criteria of psychopathy and yet the malingerers can be distinguished from the real psychopaths. But fresh problems would arise from the so-called 'scientific discovery', such as whether the practice of diagnosing 'autonomically reactivity' addresses the context in which we normally ascribe the label psychopath (What would make someone suspicious enough to test for 'autonomic reactivity'? The *practice* of testing for 'autonomic reactivity' then presupposes the concept of psychopathy).

Psychology need not, despite its apparent lack of a clear view of its language use, suffer from from conceptual poverty (If indeed psychological concepts draw from everyday language are conceptually impoverish). A clear view of language, in particular psychological concepts, arises from a grammatical analysis of the use of terms; that is by doing philosophy. Building conceptual structures, like those presented by cognitive science, or social constructionism—theoretical psychology—is a way of producing conceptual development, but such development will always be open to philosophical inspection and dismissal.

It is not inherently wrong to develop meanings (uses) of concepts drawn from everyday language, which are different from ordinary language, for such uses are a different method of representation (like the Astronomer and the everyday person). Philosophy exposes our conceptual entanglement when our terms are used in ways which do not accord with the way the terms are expressed in theory. If I assert that I know what anger is by pointing inwardly to the object of my anger, Wittgensteinians will object that my claim to knowledge is conceptually awry and show me otherwise. If I assert that calculation occurs through information processing in the brain, Wittgensteinians will remind me that a rule does not contain its own application, and that an endless regress occurs when I try to account for how an information processing system operates.

Psychology and philosophy (Wittgensteinian style) are in a symbiotic relationship with psychology developing theory and philosophy tearing down that theory which results from conceptual entanglement.

> Philosophical clarity will have the same effect on the growth of mathematics [or psychology] as sunlight has on the growth of potato shoots. (In a dark cellar they grow yards long.) (PG p. 381).

Nevertheless, the acid test for psychology is the development of theory which accords with grammar, since philosophical problems, according to Wittgenstein, only arise from grammatical confusion, a clear view of the grammar of psychological terms allows psychology to advance its representation (theory) without philosophical criticism. Kenny (1984) suggests that Wittgenstein viewed philosophy as a kind of therapy which relieved us of the burden of entanglement in our language. If we are infected by conceptual entanglement at present then philosophy rescues us with treatment. If we are to continue to make conceptual development in psychology then it is only by having the benefit of philosophical inoculation, studying the grammar of terms, that we can avoid what Hacker (1986) calls the 'disease of the intellect'.

Psychology seems unduly restricted by philosophy on this view. Why do other disciplines *seem* to get away without 'treatment'? Medical research appears to avoid criticism, physics and chemistry are left to form their concepts freely, seemingly without philosophical intervention. In truth they do not avoid attention from a Wittgensteinian analysis (Hacker, 1986 p. 157 offers two examples). The point is that psychology is a much harder discipline than any other because its concepts, drawn from everyday language use, are used in many ways (RPP, II, §20). Psychologists are prone to error because of the complexity of the uses of language they employ. Physicists and medical researchers are still very capable of error—*perhaps* less frequently than in psychology.

The Scientific study of Scientific Creativity

There is no singular definition of the word 'creativity'. I can judge someone creative, they may judge themselves to be creative. 'Creative' may be used to describe the individual or a group. An individual's product may be viewed as creative: a work of art, an argument, a scientific theory. To say 'X' is creative could mean many different things. 'X' could be an object, an argument, a method, a person, a group of individuals, or a society.

Indeed without this flexibility it would be circular to state one can be creative about creativity, or perhaps less obviously, that one can describe conceptual development in psychology in relation to the concept of creativity. But from the Wittgensteinian perspective a term's meaning is internally related to its use. To argue that psychology cannot turn its

methods to study creativity without being in itself a creative achievement, is to overlook the importance of Wittgenstein's insight. To argue the above is to adopt a view of the nature of the meaning of the term creativity which is rejected: the view adopted in the *Tractatus* that the terms of language have an 'essence'. Furthermore, it has been argued that the methods of psychology, in themselves, do not produce conceptual development, so if by 'psychology' one means 'empirical psychology' there is no circularity involved—applying established empirical techniques is, in itself, not creative. That is not to say empirical research in psychology could not be creative. One could develop a new method of researching a particular problem, as, for example, Sperling (1960) did, or investigate phenomena in ways which leads to a new way of looking at things (cf. Schachter's study of psychopaths). An investigation may lead to the abandonment of and old conceptualisation and bring about a new one. But it is the shift in representations that is creative not the identification of the phenomena which brought the shift about, since, it has been argued, evidence is internally related to a grammar (A representation of the world).

The argument that the scientific study of scientific creativity is circular would need, given the above, to be directed at theoretical psychology. Theoretical psychology, it is contended, is capable of conceptual development. Conceptual development enables a change in our 'world view' therefore theoretical psychology, given that it is capable of conceptual development, has the capacity to be creative. The argument is avoided because the proposition, "The scientific study of scientific creativity" has a different use of the word 'scientific' from that expressed by the phrase "scientific creativity". In the former what is described is a method, in the latter an object. Given that the terms of the argument which superficially appear to have the same meaning, do indeed have different meanings (uses), there is no logical compulsion to attend to the charge of circularity. Even if theoretical psychology developed an account of the practices of creative psychologists it would be no more problematic than historians studying the history of history as a discipline. (One might even replace the one of the terms with a synonym to avoid the attractiveness of falling into this pit of misunderstanding. Consider PI §577, and PI §121).

Despite Wittgenstein's view that there can be no conceptual development in philosophy, and the concomitant view that philosophers and scientists will keep falling into the same misunderstandings provided they do not have a clear view of language (PI§ 115), it does not follow that philosophy

makes no progress. Philosophy is not trapped on a treadmill pacing out the puzzlements of language without any advance. There are two ways in which philosophy advances. Borrowing Kenny's analogy, philosophical progress is like medical progress. As society advances old medical problems have solutions and rarer and more difficult conditions are turned to by medical researchers. (Kenny 1984 p. 58). The negative function of philosophy adopted by Wittgenstein allows progress by the elimination of puzzlements. The elimination of a problem is an advance. The positive aspect of philosophy, according to Wittgenstein, is the development of an overview of the way language is used. We must become familiar with the way we use the terms of our language to avoid philosophical confusion. Wittgenstein even offers a treatment for psychological concepts (Z. §472 and RPP II, §63). To gain an overview is an advance. This achievement can be systematic but never complete since one can never anticipate all sources of confusion and unclarity (Hacker, 1986 p. 178).

The separation of philosophy from science for the purpose of studying creativity threatens to make creativity in philosophy logically impossible. Creativity is thought to be exercised in the conversion of a shared practice to a new world view by an individual exercising the ability to break from established tradition and develop new concepts which describe the world differently. Since the development of new concepts within philosophy is excluded it would seem that creativity in philosophy is impossible. But what is excluded is not creativity in philosophy but *scientific* creativity within philosophy. The grammar of creativity, the rules we used for the ascription of creativity, is undoubtedly similar in the case of philosophical progress with that of scientific progress. Both the philosopher and the scientist may offer a new perspective on a problem but the scientist does so by discovery and invention and the philosopher by clarification and prescription. In the same way a contribution to science is not an artistic achievement, philosophical progress is not an exercise in scientific creativity.

Conclusions

Shotter (1991) claims that Wittgenstein's philosophy should be interpreted as offering 'radical and assimilable' conclusions to the practice of modern day psychology. But in the light Wittgenstein's conception of philosophy one can now dismantle Shotter's claim. A criticism of psychology from the Wittgensteinian perspective relies on there being some grammatical confusion expressed within the terms of the theories generated by the discipline. These confusions are present, and some have been offered as examples of how Wittgenstein's arguments can be used to address the problems within theoretical psychology. The negative aspect of Wittgenstein's thesis allows for the production of arguments, which if correct, repudiate the 'cognitivist programme' within psychology. There is no argument offered here against Shotter's conclusions in this regard. However, the positive aspect of Wittgenstein's thesis, the idea that we fall into error because we do not have an overview of language, that we should *describe* the features of our language and not try to *explain* the nature of its essence, does not radically alter psychology in any way, except one. Philosophy acts like the sunlight on potato shoots: without philosophical inspection the theoretical psychologist is likely to fall error to the complexity of our language. But it does not follow from the acceptance of this that psychology must reorganise itself around some Wittgensteinian framework. For indeed, it was Wittgenstein's long held belief that philosophy cannot provide a basis for any other discipline. While philosophy can map the way, it is the decision of the scientist to risk the peril of journeying forward.

Shotter (1991) may still be correct that Wittgenstein offers arguments for the radical alteration of psychology, but only in the sense that Wittgenstein's arguments might be used to destroy all that is useful within current psychology so that nothing is left. It would then be Shotter's view that psychology should advance in a particular direction, involving the study of the moral and political consequences of our interactions, not Wittgenstein's. It would certainly not follow from the elimination of particular alternatives within psychology, like cognitivism, that psychology should advance in the direction Shotter suggests—one does not know which way to go ahead simply because someone points out that you are

lost. Chapter Two demonstrates a commitment to Shotter's criticisms of cognitivism, and Chapters Three and Four offer some sympathy for the social constructionist position adopted by Harré (1988, 1989, 1989a and Coulter 1973). However, the next chapter is designed to demonstrate how that grammatical clarification of psychological concepts enables the development of theory within psychology, which avoids the pitfalls of grammatical error, and establishes, despite claims to contrary (Williams 1985), that some current theorising and empirical work in psychology is acceptable, and unaltered by Wittgenstein's insights.

Chapter Eight

Wittgenstein's Philosophical Method: A Process of Conversion

Introduction

Chapter Five clarified Wittgenstein's position in relation to the results of science being adopted by philosophy. The results of science, in particular psychology, do not solve conceptual problems. Conceptual clarity, or the resolution of conceptual problems remains the task of philosophy in Wittgenstein's account. But since we are unclear as yet how this might be achieved it remains the purpose of this chapter to describe Wittgenstein's method of producing conceptual clarity. Until now the only aspect of Wittgenstein's method that has been adopted, and discussed, is what is called the 'negative function' (Genova 1993). The negative function involves pointing out the errors in philosophical theorising or theorising in science by establishing, for example, that a theoretical position characterises its terms in one way and uses them in another.

Conceptual problems arise, it has been argued only when grammatical boundaries are broken.

> Just as many rules of law are only of interest to us when we are tempted to break them, so too certain grammatical rules only become philosophically interesting when philosophers are tempted to violate them. (Baker and Hacker, 1980 p. 281).

This perspective characterises the relationship between philosophy and science like the relationship between a legal system and the citizens in its jurisdiction. The legal system only reacts against breaches of laws and regulation and offers no prescription as to how one should act within that community. But if our interest lies in understanding how it is that we can

make changes to a shared social practice, or how others do make changes to the shared practice of science, such as those we regard as creative, then we must look to understand the relationship between ways of acting in science and the regulatory role which Wittgenstein has given to philosophy. Further to this we must establish the status of this philosophical position, that is, why we should accept Wittgenstein's suggestion that philosophy serves, what can be called a regulatory function.

The legal system reacts to, and changes as a result of, apparent breaches of the rules embodied in precedent and statutory provisions. When a person's actions are clearly covered by a law nothing upsets the system. If I fail to stop at a compulsory stop sign and I am caught then there is a rule in law which will inform others of the illegality of my actions. Philosophy, conceived as having a regulatory function also reacts only to breaches of 'the rules'. But 'the rules' here are the rules of grammar. We are all aware of the rules of grammar in the same sense that we are aware of the law. We know how to use the terms of our language appropriately. But using the terms of a language does not entail knowing the rules for the use of a language and accessing those rules is not as convenient as legal study. In the same sense, acting in accordance with the law does not entail knowing the law. (Imagine that you are in some foreign country and unsure whether your actions are legal but coincidentally are—see Chapter Two pp. 51-61).

It was once asked in introductory law class whether or not a section fenced on three sides constituted for the purposes of a particular act an 'enclosed yard'. The class was evenly divided on the issue. Few were willing to venture that there was no answer to the question. Those who are familiar with legal practice appreciate that much more is involved in giving an 'opinion' (I mean a legal opinion). One must analyse the purpose of the act, how it was *intended to be used,* in order to resolve the conceptual difficulties involved in its application. Similarly, the rules of grammar are breached when their application is stretched beyond their intended purpose. Wittgenstein requests that we seek clarification by understanding the use of our terms.

It is convenient at this point to draw out two aspects of the analogy. Those who do not break the law do not come before the courts—in both senses: to plead guilty or defend one's actions. Theorists who do not breach rules of grammar are immune from the negative function of Wittgenstein's philosophy—philosophy must remain silent. And one does not need to

study the rules of grammar to accord with them (albeit perhaps accidentally since one is unsure). Psychological theory is not necessarily entangled within language (Chapter Seven). This last point is important. It will be argued that Wittgenstein provides us only with a resource which enables us (psychologists) to accord with the rules of our own inquiryp; he neither does the inquiry himself, nor offers a new way for it to be done.

Conceptual Change Revisited

Wittgenstein insists that my perspective on what counts as evidence is derived from my world-view. A shift in my world-view, the form of representation I give the problem, will produce an new account of what constitutes evidence (see the examples and elaboration offered in Chapter Six). This argument can be derived simply from the original supposition that a rule is *internally* related to what accords and conflicts with it (Chapter Two). Hacker (1986 p. 252) summarises:

> ...it is a consequence of the reflections on rules that a common understanding of a rule for the use of an expression is manifest in a common technique of application. That you and I both understand the ostensive definition 'This ↑ is red' in the same way is manifest in our calling (by and large) the same things red....widespread ramifying disagreements over judgements [What constitutes evidence] (the application of concepts) would betoken disagreements over definitions (explanations) inasmuch as it would signify disagreement over the technique of application of expressions in accord with those explanations.

That we encounter a multiplicity of representations of the world, representations which promote disagreement, has been the subject under discussion throughout this thesis. We encounter bizarre, insane, alien, deviant, novel and creative practices as *measured by our own form of representation*. Our form of representation gives meaning and intelligibility, or unintelligibility, to the multiplicity of arrangements we encounter.

But this might leave one questioning what stands to give our form of representation its intelligibility as anything other than an arbitrary representation of the world. In comparison to other forms of representation, say those of a primitive tribe, we can use our method of representation as a measure of the adequacy of the tribe's representation,

and declare that theirs is 'poorer by far'. When we give up our own representation (not our opinion) and come to accept the form offered by another, perhaps an individual which we then describe as creative, we think we ought to do so because of some compelling reasons, some force of reasoning; perhaps some social processes, as in the case of propaganda. In such circumstances it is thought to be possible to lay down the rules by which we make such a transition—Thus by this procedure justifying the adherence to our particular form of representation and blocking the charge of arbitrariness.

Traditionally it has been the task of the philosophy of science to reveal these rules: the character, or structure of a theory, or argument, which forces us to give up our previously held beliefs and adopt new ones. The task of philosophy is conceived as laying bare the ways we *should* act when confronted with divergent practices, competing theories, and novel argument. On this view philosophy regards psychology or sociology as irrelevant since these disciplines tell us how we *do* act. Wittgenstein's conception of philosophy and its relationship to psychology, or any other science, is profoundly different from this traditional conception of the role of the philosophy of science. His view of philosophy does away with the above distinction altogether to leaving a middle-ground which is not aligned with either the traditional role of the philosophy of science, nor contemporary naturalised versions of the philosophy of science (see Chapter One, pp. 24-27).

The examples in Chapter Six of the catholic and the chemist, Galileo and the church, the astronaut, the scientists and the tribe of dream-travellers, serve to illustrate the complexity surrounding a transition from one world-view to another. Brute reason alone will not persuade the catholic to abandon his view on communal wine. If we give Wittgenstein the premiss that our form of representation is not justified by the evidence but constitutes the evidence then the arguments derived on the basis of the 'evidence' can be equally forceful for both the catholic and the chemist. Indeed, an alternative form of representation, it has been conceded, cannot be judged wrong or right, only dismissed when measured against our own form of representation, and our own conception of evidence, as *perhaps* 'poorer by far'.

The Role of Values and Metatheoretic Functions in the study of Science.

The idea that the acceptance of a theory is based on something other than its empirical adequacy, or logical criteria, is not foreign to the philosophy of science. McMullin (1983) presents the argument, adopted by a larger following, that:

> ...the appraisal of theory is in important respects closer in structure to value-judgement than it is to the rule-governed inference that the classic tradition in philosophy of science took for granted. (pp. 6-7).

By 'value-judgement' McMullin does not mean, "a cognitive act" (p. 4) nor "emotive values" (p. 4) or "ethical values" (p. 7) but "characteristic *epistemic* values (p. 6), which are identifiable features of scientific theories. Following from Kuhn (1977), McMullin lists five characteristic values of a good scientific theory: Predictive accuracy, internal coherence, external consistency, unifying power and fertility. He adds one more, simplicity, and warns:

> Even though we cannot definitely establish the values appropriate to the assessment of theory...we can provide a tentative list of criteria that have gradually been shaped over the experience of many centuries... (p. 18).

The exact nature of the values is not important, they will be dealt with shortly. McMullin (1983) is unhelpful in his characterisation in any case, saying of predictive accuracy, that after an initial period of probation that "...a high degree of predictive accuracy is in the long run something a theory *must* have if it is to be acceptable." Other commentators are equally unhelpful with Howard (1984) following McMullin to say "..in the long run a theory must demonstrate predictive accuracy if it is to be acceptable" (p. 257). The focus of this "middle of the road position" (Howard, 1984) is a description of what actually occurs in scientific enterprise and not an attempt to provide the rationale for the adoption of theory by the scientific community.

Kuhn (1977), who is partly responsible for this line of thought, is quite explicit in his denial that any algorithmic procedure, which employs the criteria mentioned or any other combination of any other criteria, can provide the basis for theory evaluation. He maintains that his criteria merely serve to describe:

> As description, furthermore, it has not been challenged by my critics, *who reject instead my claim that these facts of scientific life have philosophic import.* (1977 p. 325) (Emphasis mine).

Kuhn's rejection of the attempt to turn description into prescription by adopting some algorithm or other is based on two arguments. He argues, as a matter of fact, two scientists armed with the same set of criteria, and confronted with two competing theories "...may nevertheless reach different conclusions."(p. 324) and continues:

> With respect to divergences of this sort, no set of choice criteria yet proposed is of any use. One can explain, as the historian characteristically does, why particular men[or women] made particular choices at particular times. But for that purpose one must go beyond the list of shared criteria to characteristics of the individuals who make the choice. (p. 324).

Since, as a 'matter of fact', scientists may have different reasons, that is, apply the criteria of theory appraisal differently, and yet derive the same, or different, result, only some explanation derived from psychology, or something external to the criteria will suffice as an account of theory evaluation. Kuhn's second argument is not fully developed, but is obviously related: "Even an ideal [Algorithm], however, if it is to remain credible, requires some demonstrated relevance to the situations in which it is supposed to apply" (p. 326). But Kuhn's well known, and influential, plea that the philosophy of science accord with the history of science is the point at which it is necessary to depart from his important observations. Since it has been accepted that Wittgenstein rejects the idea that conceptual problems can be resolved by empirical investigation, the claim that "*...these facts of scientific life have philosophic import .*" (1977 p. 325) must be rejected in order to accommodate Wittgenstein's conception of philosophy and understand the relation of philosophy to psychology.

The point to be gained from this, for now, is simply that the criteria of theory appraisal presented by Kuhn (1977) are descriptive of events in history, they were not intended for the purposes about to be examined, and rely on independent verification in science, or history. The criteria of theory appraisal derive their philosophical importance from a particular view of the philosophy of science, the naturalised view of science (Introduced in Chapter One), which it has been suggested does not accord with Wittgenstein's view of the relationship between science and philosophy. Consequently, and more importantly, this view does not

accord with Wittgenstein's view of the relationship between his philosophy and the science of psychology, and in turn here, the relationship between the philosophy of science and the scientific study of creativity.

Thagard's Computational Account of Scientific Theory Choice

Thagard (1989) adopts from the philosophical literature the notion of 'Inference to the best explanation' (p. 435) to describe the acceptance of an explanatory hypothesis. He seeks to offer an account of explanatory coherence which adopts principles similar to those which Kuhn offers as descriptive of the practice of theory appraisal by scientists. He further contends to demonstrate, "Their *sufficiency*...by the implementation of the theory in a connectionist computer program called ECHO..."(p. 435) (Emphasis mine). The argument to be presented here is intended to address the confusion entailed by conflating philosophy with psychology, and theory with grammatical analysis, it is not intended to undermine the contribution, and possible practical applications, Thagard has produced.

Thagard refers to everyday decision making, such as medical diagnosis, legal decision making, and scientific theory acceptance, but makes no attempt to distinguish those situations which present a range of alternatives which promote disagreement and those which if accepted require conceptual reorientation. The range of divergent practices we might encounter has already been at discussed at length. However, it is necessary to reinforce the point already made (Chapter Five pp. 199-204) that disagreement occurs within a shared practice (The catholic/chemist type situation) whereas conceptual reorientation comes from the adoption of a hitherto contingently unshared (novel) practice (The conversion of the tribespeople, or the scientists, to the astronaut's form of representation).

Thagard regards the acceptability of a proposition to be dependent upon its coherence with other propositions which we believe. He offers seven principles of explanatory coherence which he instantiates into the ECHO algorithm. The principles can be regarded in the same way as the criteria of theory appraisal posited by Kuhn (1977) and are similar, incorporating such things as internal consistency, explanatory breadth, and simplicity. Again, it is not so important how ECHO operates, or what criteria it uses, except to say this: ECHO uses a set of decision procedures which operate on inputs to

make an evaluation of the acceptability of competing theories and produce an output. That output is recognised as a judgement of the acceptability of a hypothesis, or theory, based on those decision criteria. ECHO may determine from the evaluation of two competing hypotheses that neither is acceptable, or that one is more acceptable than the other.

One might be greatly suspicious of entertaining such a device for the purposes of legal decision making but when applied to historical examples the efficacy of the design seems compelling. ECHO appears to decide amongst competing alternatives when given an outline of the theories and their relation to the *agreed upon evidence*. Thagard has applied ECHO to a whole range of historical examples of scientific debate which eventually produced a settled outcome (1989 p. 444). Nevertheless it is sufficient to take the example of the Phlogiston/Oxygen debate (pp. 444-446) concerning the nature of combustion to assess whether the algorithm actually presents the decision criteria we might actually use in the adoption of a divergent practice.

Throughout this thesis it has been maintained that the relation between a rule and what accords with the rule is internal. The related Wittgensteinian point is that evidence is internally related to a form of representation (for our purposes here a theory). ECHO requires inputs as to what constitutes the evidence which is debated by competing theories. Thagard chooses, amongst other things, "In combustion, heat and light are given off" (p. 444) as something both the oxygen theory and the phlogiston theory explain, and "In calcination, bodies increase in weight" (p. 444) as something which only the oxygen theory explains.

It has also been argued that the methods of evidence gathering can be non-controversial, in particular such a claim as "The creative have a higher incidence of mental illness than normals" was regarded as a relatively uncontroversial piece of evidence which relies only on there being an identifiable difference between the mentally ill, the creative, and normals. I can imagine circumstances in which the assumed differences are not given as a matter of course: someone might argue that the insane really are the creative in our society and there really is no discernible difference between the two ascriptions. Since the present argument seeks to establish that difference it is a point which will be returned to shortly. Nevertheless, the general point remains that what constitutes evidence, even if there is an agreed upon method of collecting it, is not uncontroversial. A person

inclined to view creativity and insanity as synonymous ascriptions would reject the claim made above as nonsense—similarly we might question the evidence gathered to establish a relation between crime and narcotic abuse when narcotic abuse is considered a crime. When Thagard lays down the 'evidence' for the theories which ECHO evaluates he treats the relationship between evidence and theories as uncontroversial, like in the catholic/chemist example of Chapter Five, and ignores the possibility that the so-called 'evidence' of one theory may not be regarded as evidence at all by a competitor.

With the benefit of hindsight it is appropriate to declare that the inputs of evidence for the oxygen/phlogiston theories to be uncontroversial, analogous to the uncontroversial concessions made by the catholic to the chemist (i.e agreement over what 'blood' and 'wine' are, or the situation in which we declare a rival explanation "poorer by far"). But when such things as negative weights, or the existence of God are included the discussions break down (see Zytkow (1989) for a discussion concerning Phlogiston.) One could not automate the inputs according to the rules Thagard proposes: "(1) If a proposition is a piece of evidence, then accept it." (p. 455) since it is not clear, when encountering an unshared practice, what constitutes the actual evidence. Notwithstanding this, ECHO still provides a description of the features of a theory which may be influential in producing social acceptance of a divergent practice—in the same way Kuhn (1977) recommends we treat such criteria. There is nothing wrong with using the criteria as the historian does to describe instances in history. What is not clear is whether Thagard's theory has any prescriptive value, whether ECHO's success in describing such historical examples establishes the sufficiency of the criteria it employs to evaluate new divergent practices. In a new situation what counts as evidence may be controversial, and indeed not even seen as evidence until the conversion to the new view has occurred—ECHO's application would be redundant (see Chapter Five).

Commenting on the ECHO programme Dietrich (1989) queries:

> I am not sure what his theory of explanatory coherence is a theory of. Viewing his theory as philosophy of science required a conscious choice on my part, because there is at least one other way of viewing his theory: as psychology. (p. 473).

In response Thagard (1989a p. 491) declares that he intended ECHO to contribute to both fields. He justifies his claim with the following:

> [1]...post positivist philosophy of science should be psychologistic, not in the strong sense that supposes that however scientists think is rational, but in the weak sense that judgements of rationality take actual thought processes as their starting points. [2]The investigation of those processes then becomes part of the philosophy of science. [3]The best current method for psychological theorizing comes from computational modeling. (1989a p. 491).

Thagard's overall theory *might* be dismissed by adopting the arguments already raised in Chapter Two which present some obstacles to the cognitivist approach. He does not go so far as to commit himself to a functionalist account of psychology in the above. But taken baldly his third claim is at best an empirical claim about the frequency of using computer models in psychology, and at worst, the expression of an opinion. Thus his third claim might be dismissed. His second claim that science can illuminate the problems of philosophy might also be dismissed using the objections raised in Chapter Five which argue that conceptual problems are not resolved empirically. And his first claim summarily dismissed as being encompassed within his second. But it will be argued that there is *something* correct in Thagard's claim that his investigations contribute to both philosophy and psychology. But in order to see the correctness of his view it is necessary to re-orient our conception of the relationship between philosophy and psychology. In this regard Wittgenstein's comments on the nature of philosophy are of paramount importance for they will enable us to interpret Thagard's work in relation to the concept of creativity. And from this perspective understand how the study of creativity in psychology can, and in what way, contribute to our understanding of science.

The problem is this: What contribution, if any, does the introduction of a theory of epistemic values, like those included in the ECHO algorithm, have for our understanding of the practice of science? We want to know what it is that makes good science and contributes to conceptual change vis-a-vis the ramblings of the insane. It has been accepted that there is something correct in introducing the idea that conceptual change occurs through the evaluation of theory on such criteria as are instantiated in ECHO but what is unclear is whether such proposals, Kuhn (1977), McMullin (1983), or Thagard (1989), belong to philosophy or social science.

Are the sets of criteria for the evaluation of theory provided by Kuhn, and others, to be understood as philosophical theses or theories belonging to

social science? As theses of philosophy there is the risk of producing an infinite regress. Conceptualised as theories of theory appraisal a further theory is needed to assess whether, for example, Kuhn's theory of theory appraisal is to be accepted in competition with Thagard's, or some future competitor. Some further theory is needed to decide between competing alternatives—such concerns underlie the claim that the philosophy of science needs to accord with the history of science (Kuhn 1962). As theories in social science it is *prima facie* justified that the adequacy of the theory might be demonstrated by its success on evaluating historical examples. However, since adherents to the construction of these criteria for theory evaluation accept that the same facts can be explained by many theories there can be no recourse to history to evaluate the alternatives. Some future theory may repeat the successes of ECHO, or fare worse, or better at evaluating historical examples. Despite Thagard's claim that the 'sufficiency' of the criteria instantiated in ECHO is demonstrated by its success with historical examples, this attempt to provide some justification for his thesis is self-defeating. Such arguments underlie Kuhn's (1977 p. 326) insistence that the criteria he posited could never be instantiated in an algorithm for the purpose of deciding between alternative theories in science in the present or future.

The question addressed here represents a broader issue. The contribution of philosophy to psychology, or the philosophy of science to science, represents a growing concern to those taken by the 'naturalistic turn' discussed in Chapter One. Dedrick (1993) concerned with the confusion on the matter in the literature of the philosophy of mind asserts:

> Either the concepts are scientific ones and therefore purely empirical...or they are concepts which we can access in terms of some metatheory...The non-naturalist will never allow this distinction to be collapsed for he or she sees it as crucial to the existence of a proper "philosophical" level of inquiry. (pp. 392-393).

Phillips (1977) recognises the wider implication of this problem. In relation to criticism of Kuhn (1962) he points out that the sociology of knowledge is not a distinct or unique approach to the study of social phenomena. While there may be some concern regarding whether or not 'knowledge', in the sense accessible to philosophy, really is a social phenomenon, it is clear, that:

> ..some of the criticisms launched against the new image of science are criticisms resulting from taking seriously the implications of a fully sociological approach to scientific practice. (p. 74).

The same commitment underlies Dedrick's (1993) conclusion that "...there has *in fact* been a naturalistic turn..." (p. 395) and concerns over the status of naturalised contributions to the philosophy of science should be halted and this 'method' be judged on its product. He states, "...the proof of this philosophical method (a term I use advisedly) will be found in its results." (p. 398). But this really avoids the issue, since, as Dedrick points out, his is a philosophical thesis. He well advises caution over the status of whether or not the term 'philosophical' applies to naturalised methods of inquiry, since this is the point in issue.

The adoption of the naturalised approach to the philosophy of science threatens to undermine metatheoretical approaches to the study of conceptual change and yet some metatheoretical approach seems necessary to establish the validity of the naturalised perspective. If criticism of the 'naturalistic turn' is successful it threatens to undermine not only an approach to the study of the development of knowledge, but also, perhaps, a wider range of inquiry since as Phillips (1977) points out, the scientific, or sociological approach to the study knowledge is not a unique approach to the study of social phenomena. There are of course ways to avoid the 'problem' (It will be argued that it is not really a problem at all) as it has been presented. One could argue that knowledge is not really a social phenomenon and therefore successful criticism of the sociological approach to the study of knowledge does not rule out other legitimate area of sociological inquiry—arguments of this kind were presented in Chapter One. This move is described in Chapter One as the 'common expedient' adopted by Frege in his programme to defend the purity of logic from all matters psychological. Philosophy then prohibits certain forms of inquiry in psychology: the study of knowledge, rationality, intentionality, meaning, or science.

Re-orientation:
Surviews and the Positive aspect of Wittgensteinian philosophy.

Wittgenstein seems, at first sight, to characterise the position represented above. Wittgenstein rules out the 'naturalistic turn', "The existence of the experimental method makes us think we have the means of solving the problems which trouble us; though problem and method pass one another by" (PI. II p. 232). Yet he also clearly prohibits theory building in *philosophy*:

> It was true to say that our considerations could not be scientific ones. It was not of any possible interest to us to find out empirically 'that, contrary to our preconceived ideas, it is possible to think such-and-such—whatever that may mean. (The conception of thought as a gaseous medium.) And we may not advance any kind of theory. There must not be anything hypothetical in our considerations. We must do away with all *explanation* , and description alone must take its place. (PI §109).

and:

> If one tried to advance *theses* in philosophy, it would never be possible to debate them, because everyone would agree with them. (PI §128).

It has been suggested that Thagard's approach to the study of scientific creativity provides something philosophical and something psychological. But there are positions in the philosophy of science which will not allow such an interpretation. As Dedrick (1993) asserts either the concepts are scientific, or they represent some metatheoretical position. Thagard's position is considered to be either justified by empirical means and therefore descriptive of the scientific enterprise or it is justified from some meta-metatheorical position which he has not established. Wittgenstein rules out both alternatives but *seems* , he denies it (PI§ 121), to be stuck in the position which Dedrick (1993) exemplifies since he wants to assert a position in philosophy which, to be consistent, must be shown not to be a thesis. Wittgenstein's escape from this position provides us with the way to interpret Thagard in the way desired.

(a)The prohibition against theorising

The first task is to establish why Wittgenstein insists that there can be no theorising in philosophy (No recourse to some metaphysical plane) and what the status of this position is. Barnett (1990) usefully places the argument into context:

> With few exceptions, this claim is greeted with disbelief. How, it is asked, can Wittgenstein avoid philosophical theories or theses? Isn't the denial of a thesis itself a thesis, even if merely negative?...Wittgenstein's grammatical descriptions sometimes do allow us to see the *falsehood* of a philosophical thesis. But to arrive at the *falsehood* of a specific thesis is very far indeed from Wittgenstein's final objective. (p. 51) (Emphasis mine).

Barnett footnotes an explanation of his use of the word 'falsehood', recognising that it promotes criticism. In Chapter Five it was argued that Wittgenstein's position recognises the impossibility of establishing the falsehood of certain divergent practices or even our own practice. Recall the response to Turing objection to Wittgenstein's use of the word 'experiment'. Wittgenstein states:

> But I want to show that this is wrong. That is to say, I think that if I could make myself quite clear, then Turing would give up saying that in mathematics we make experiments. If I could arrange in their proper order certain well-known facts, then it would become clear that Turing and I are not using the word "experiment" differently. (LFM, XI, p. 102).

Wittgenstein does not adopt a position where it is possible to assert that another position is *simply* wrong or false. His approach to philosophy is more subtle. He does not tackle his opposition head on, to dispute concepts from some meta-theoretical position, nor argue over the facts that might support, or not support a theoretical position (Baker and Hacker, 1980 p. 287). Similarly Barnett comments:

> ...it is difficult to see that over the long run Wittgenstein's way of undermining a philosophical position is not to attack it directly, but to bring its partisans to see for themselves its roots in grammar. (1990 p. 63).

Wittgenstein places himself in the position like that of the astronaut who confronts the tribespeople who travel to the moon and back in their dreams.

> I would say, "I wouldn't dream of trying to drive anyone out of this paradise." I would try to do something quite different: I would try to show you that it is not a paradise—so that you'll leave on your own accord. I would say, "You're welcome to this; just look about you." (LFM, XI p. 103).

Similarly the arguments presented in chapters Two, Three and Four against various conceptual orientations do not establish the falsity of cognitive science nor social constructionism—The arguments sought to undermine the implication that the basic assumptions of the positions addressed make sense. Some of the claims made by these positions from Wittgenstein's perspective are not false but nonsense. In *Zettel* Wittgenstein remarks:

> On mathematics: "Your concept is wrong.—However, I cannot illumine the matter by fighting your words, but only by trying to turn your attention away from certain expressions, illustrations, images and *towards* the *employment* of words." (Z. §463).

It is misleading to interpret Wittgenstein's 'negative function' as if it established the falsity of other positions; as if Wittgenstein's philosophical position occupies a privileged position from which to judge other philosophical theorising. Barnett (1990) argues that Wittgenstein's characterisation of philosophy is incomplete when only the negative function is appreciated. As Genova (1993) points out, "Many including Wittgenstein's admirers have misjudged or under-estimated his project, granting only a negative or critical (limiting) function to his avowed goals of clarification and the avoidance of theory." (p. 328). Baker and Hacker (1980 p. 279 and p. 308) similarly interpret Wittgenstein's position as providing a positive function. The 'positive function' within Wittgenstein's conception of philosophy needs to be understood so that it is clear that Wittgenstein sees his position and alternatives, like that offered by Turing, as arising from a *common* position; it is from this common position which enables him to say that another position is wrong. Similarly, we can only dismiss another form of representation as 'poorer by far' when we can interpret the claims made by others within our form of representation. In the case of the catholic and chemist the concepts representing the debate are shared. In the case of the tribespeople who fly to the moon and back in their dreams the concept of 'moon' (Our understanding and use of the concept) may not be understood by them (i.e contingently not shared) but this does not interfere with my representing their position to myself in order to dismiss it. Wittgenstein characterises

philosophy as being grounded in our shared practices. It is our shared uses of terms which gets distorted and requires clarification.

Our misunderstanding and confusion comes from our inability to survey the use of our language (PI§ 123). In Chapter Three the possibilities concerning language and rule following were examined. There it was conceded that rule-following activity requires a practice. A corollary of this conception of rule-following was that a rule is internally related to what accords and conflicts with it. Furthermore, to judge that an action is indeed rule-governed, as opposed to a regularity upon which we impose a rule, it was argued that certain preconditions must obtain. A rule-follower who understands the rule must be able to demonstrate the rule and recognise mistakes. Failure to demonstrate the rule would exclude the possibility that one was actively following a rule—one cannot obey a rule that one cannot demonstrate else thinking one was following a rule and following a rule would amount to the same thing. And similarly, failure to recognise any mistakes would preclude any understanding manifest in the application of the rule. If any action would accord with the rule then no action would be an instance of following the rule. On Wittgenstein's view we need an understanding of the rules we adopt when we use the terms of our language, the achievement of which is the goal of his positive function. Yet curiously he maintains that we do not have an understanding of the grammar of our language use and this is what leads us to error:

> A main source of our failure to understand is that we do not *command a clear view* of the use of our words.—Our grammar is lacking in this sort of perspicuity. A perspicuous representation produces just that understanding which consist in 'seeing connexions'. Hence the importance of finding and inventing *intermediate cases.*
>
> The concept of a perspicuous representation is of fundamental significance for us. It earmarks the form of account we give, the way we look at things. (Is this a 'Weltanshauug'?) (PI§ 122).

It is curious that Wittgenstein makes such assertions about the sources of philosophical confusion since as a language-user Wittgenstein insists I must have the potential to identify the criteria for the application, the use, of terms. It follows from Wittgenstein's conception of rule-following that it is *logically possible* to obtain a 'clear view' of the use of our words. (Henceforth the notions of 'clear view' and 'perspicuous representation' will be replaced with Baker and Hacker's term 'surview'—see 1980 p. 295 for

a justification.) Nevertheless, developing a surview involves *describing the use of our terms*, not merely using them. Barnett (1990) points out:

> Knowing how to *use* a word does not entail knowing how to *describe* its use. Describing the circumstances of use is omitted from learning or practicing the use of an expression. We simply learn to use the expression *in* those circumstances. (p. 52).

The example offered in Chapter Two was that of acting in accord with the rule displayed by a sign at the entrance to a park. In the example it was illustrated that an *interpretation* of the rule does not constitute the *meaning* of the terms displayed by the sign. Despite honest intention to accord with 'the rule', my interpretation of the rule may differ with another's interpretation of the rule. The reasons I produce to defend my interpretation (my understanding) go only so far as to defend the interpretation of the sign *which I adhere to* (My way of acting). In terms of the analogy to the practice of law: acting in accordance with the law does not entail knowing the law. I learn to act in certain ways, perhaps appropriately, and that is all. There may be *reasons*, which I adopt, given by others for my adherence to particular actions, such as: "Thieving is illegal". The analogy holds when one considers that certain grammatical errors of children are similarly sanctioned with remarks from adults that such and such an expression "Does not make sense!" The fact that I learn how to use an expression from others does not place the correctness of the use of an expression in the hands of the community (see Chapter Four). Knowing all the rules which I adopt in order to use an expression, all the rules taught to me by a community, parents, teachers etc, does not entail having the ability to describe the correct use of a concept. I might have good reasons for my actions, perhaps some moral system as guidance, and still fail to know, or have the ability to describe, my accordance with the actual practices prescribed by law, or the actual prescriptions of grammar. It is the task of philosophy to reveal the perspicuous representation for the use of language—it is a different and immensely more complicated task than actually using or describing a language.

In summary, we lack a surview of our language use and this, it is suggested, leads us to philosophical error. Knowing how to use a language does not entail knowing how to describe its use, although *it must be possible* to describe the use of language given an adherence to the conception of rule-following offered by Wittgenstein. Nevertheless, offering the *reasons* I

adhere to a particular use of an expression, even if such an examination is thorough, does not encompass a description of the use of the concept.

(b) Surviews and the study of Everyday Language.

Wittgenstein's conception of philosophy is a little discussed aspect of Wittgenstein's legacy. When attention is drawn to his conception of philosophy commentators are inclined to focus on the negative function Wittgenstein attributed to philosophy (Genova 1993). Bold metaphors are invoked to encapsulate the spirit of Wittgenstein's concerns about the nature of philosophy, such as the comparison of the philosopher with the therapist or destroyer of misunderstanding. Chapter Seven ended with a discussion of progress in philosophy which recognised that Wittgenstein saw a positive aspect to philosophy. Perhaps the most well recognised of all Wittgenstein's comments on these matters is:

> What is the aim in philosophy?—To show the fly the way out of the fly-bottle. (PI §309).

Although the claim has been variously interpreted, one aspect is clear: the achievement of Wittgenstein's philosophical aim is positive; he releases us from our cage of misunderstanding.

Chapter Four examined in detail the position which suggests that I acquire and maintain the correct use of expressions by adhering to social conventions. It was argued that community agreement over a rule does not establish the correctness of that rule. It was accepted that community agreement over the application of rules is a *necessary precondition* for shared practices rather than a contingent feature of them. A surview is not obtained by recounting all of the rules by which we learn the use of an expression. This view is justified only by the further assumption that the community from which the practice is learnt exhausted all possible uses of the expression. Furthermore, it overlooks the importance of the role of philosophy in clarifying the sources of our misunderstanding—the study of actual use of language independent of some philosophical problem (i.e the symptom of misunderstanding) could not possible anticipate the variety of future misuse of language.

Harré (1989) introduces the importance of not confusing linguistic analysis with a surview:

> In psychology we are not concerned with the dissolution of philosophical problems, though we should be aware of their seductive character. We are interested in the revelation of basic psychological controls, in the normative structure of a social milieu. This kind of analysis includes the use of speech-act categories, an approach to language in which the analysis is directed to identifying the social force of different kinds of utterances, classified not by their traditional grammatical and semantic aspects but by reference to their character as social acts. (pp. 171-172).

This view recognises the importance of Wittgenstein's positive function—the endeavour of producing a surview to avoid conceptual confusion: *not being seduced by their seductive character.* Harré (1989) recognises that conceptual confusion arises from entanglement in our language (PI. II, p. 232). Theoretical psychology benefits from a surview of the concepts it employs. A surview precludes conceptual confusion and therefore avoids Wittgenstein's negative function. A surview is obtained by describing the criteria for the use of an expression. But treating those criteria as a contingent feature of a shared social practice fundamentally distorts Wittgenstein's arguments (As it was argued in Chapter Four) it leads to the conclusion in *psychology* (Often represented as Wittgenstein's) that one can obtain a surview of grammar by examining, in a quasi-empirical way, everyday uses (At least actual uses) of language. The problem with interpreting Wittgenstein in this way, notwithstanding that it is not Wittgenstein's position, is that it commits the Wittgensteinian position to be one built upon and *defending* actual everyday use of language: Wittgenstein's philosophical position is one that is justified by recourse to actual language use. This conception of the development of a surview must be dismantled before it is possible to offer Wittgenstein's position on the status of his philosophy and the relationship it has to theorising in psychology.

There are temptations within Wittgenstein to seek out a surview by an empirical inquiry of actual everyday uses. This arises, in part, because of Wittgenstein's prohibition on theorising in philosophy. Wittgenstein tells us that:

> Philosophy simply puts everything before us, and neither explains nor deduces anything.—Since everything lies open to

> view there is nothing to explain. For what is hidden, for example, is of no interest to us. (PI §126).

'Everything lies open to view' not because we can examine actual practices empirically, but because it must, as a logical consequence of being able to follow a rule within a shared practice, be *possible*, albeit perhaps not actual, to describe the employment of the rule. If something were to operate which is unknown to us, say the causal processes inside our head, alongside following a rule, it would be irrelevant. (PI§ 304) To be said to be *understanding* the employment of a rule one must be able to distinguish mistakes and demonstrate the rule. The rule must be known. "For by token of being unknown, it can have no role in our rule-governed practice of using language." (Baker and Hacker, 1980 p. 280). It follows that everything we need to know about the employment of rules, and hence the grammar of our language use, is contained in our practices. What is missing when we fall prey to the complexities of our language is not some hidden rule which philosophy needs to discover. We lack an understanding of the rules we adhere to. Our philosophical puzzlement (our misunderstanding) arises from our lack of understanding of our own shared practices. Consequently, the achievement of a surview in philosophy is not the production of new discoveries. A description of language use is not a discovery of any kind. Baker and Hacker (1980 p. 280) point out "We could not discover a new rule of chess, we could invent one, or discover that some other people play a game similar to chess but with slightly different rules." All philosophical achievement is the production of a clear view of our misunderstanding, not the discovery of rules of which we were unaware.

The sense in which we can discover a surview is akin to the discovery of a legal defence we were unaware of. Perhaps it might come as some surprise, like that which accompanies a discovery of any sort, that unbeknown to us we have a defence in law of being too drunk to have the intention of driving with excess blood alcohol. But the 'discovery' rest on the precedent already being set in law—nothing new is added to the law by your 'discovery'. One cannot discover defences in law which do not have some precedent, one can only invent them; in this case they would not be the law at all—an invented defence might become law but then the 'game' has been changed. The discovery is analogous to the conversion that may be undertaken by the catholic to the chemist's perspective. What constitutes 'the facts' comes from within a form of representation, by converting to a new form of representation, new 'facts' are 'discovered'. There are, on

Wittgenstein's conception of philosophy no discoveries: everything about the correct use of language is open to view in the employment of our linguistic practices. Philosophy, in seeking out a surview to censure conceptual confusion, does not discover anything not already present (PI§ 128).

To argue that Wittgenstein defended actual everyday language use commits Wittgenstein to the assumption that näive language use is the ultimate source of conceptual understanding—this would be a thesis Wittgenstein would have to defend but would be contradictory to his argument that in philosophy there is no theorising. It is similar to the view that a question of law is somehow resolved by seeking out all the cases that bear some relevance to a case not clearly covered by the law (One might forget that 'the law' is created through a social practice). One would then have to theorise that every conceivable future event has some precedent in case law. Or roughly, that every conceivable future action is either sanctioned or prescribed by current legal precedent—albeit that those prescriptions, for example, are hidden within old cases and must be found. One only needs to consider a technological advance (a new way of acting), say in genetic engineering or embryology, to appreciate how the law often lags behind its social function—There are always new legal questions to be answered, such as, whether or not a yard fenced on three sides is an 'enclosed yard'. There are always new laws being created to cover new ways of acting—that is the function of parliament.

There are, in the context of the present argument, three consequences of regarding Wittgenstein's philosophy as being ultimately justified by recourse to a conception that everyday language embodies a theory of meaning from which all other theorising can be assessed, or perhaps derived. Firstly, by regarding only the negative function of Wittgenstein's philosophy one can arrive at the position which was rejected in Chapter Two. One can claim, for example, that 'thinking' does not mean literally 'C-fibre firing' since this is not the way the concept is used in everyday exposition. Adherents of the 'C-fibre thesis' claim, correctly, that reference to 'C-Fibre firing' might not represent the way the concept of 'thinking' is used presently but might be used in the future (is not logically prevented from such a use) in everyday discourse to refer to 'thinking'. One cannot show the inadequacy of such arguments if one represents Wittgenstein's position as defending actual language use. Regarding Wittgenstein's

instruction in this way misrepresents, and undermines, Wittgenstein conception of philosophy's negative function: its regulatory role.

Secondly, and relatedly, when confronted with the rejection of the notion that everyday language use provides an adequate representation of the reference of our concepts, as in the above example, one is forced to a metalinguistic plane which Wittgenstein rejects. Baker and Hacker (1980) point out the reasons for Wittgenstein's rejection of this metalinguistic level of argument comes from the *Tractatus*:

> The bounds of sense cannot be *described*, for there is nothing beyond the bounds of sense to be described. If they could be described, then there negation of their description would make sense, but if it did then that description would not describe the bounds of sense. A statement that something cannot be, i.e is logically impossible, is not a description that is impossible—but nonsense. (Baker and Hacker, 1980 p. 282).

When forced to justify an adherence to the ultimate sense of actual everyday language use one is forced to regard as nonsense everything which is not actually present in actual language use. Someone inclined to view the 'C-fibre firing thesis' as nonsense, on this view, must assert that the 'C-fibre firing thesis' has the sense of being nonsense. This position, while it seems attractive, is not compelling since it is self-defeating in the same way the *Tractatus'* conception of meaning was self-defeating—there is, on this view something beyond ordinary language which represents the limits of sense. *Philosophy* then cannot represent the bounds of sense by reference to ordinary language, since this would require the ability to stand on the outside of ordinary language to judge what does and what does not actually represent ordinary language (what does and does not make sense). If recourse to ordinary language is viewed as a contingent fact about what it is that we are capable of comprehending (A matter of psychological theorising), that anything beyond our ordinary language would make no sense (see Chapter Four for the argument against Frege and Coulter who represent this position), then as has been argued in Chapter Four,"...this at best merely describes the wholly contingent and alterable bounds of (say) English, not the necessary bounds of sense." (Baker and Hacker, 1980 p. 282). It is irrelevant to Wittgenstein's conception of *philosophy* that people do speak and refer in particular ways and his position is not reliant on any special knowledge of actual language use (PI§ 128).

Thirdly, regarding everyday language as a complete representation of the world, and accepting that Wittgenstein's method is descriptive (i.e accept the prohibition on theorising—as Shotter (1991) does, see Chapter Seven p. 211) tempts the confusion of Wittgenstein's method with its product (Baker and Hacker, 1980 p. 281). One is tempted into believing that an analysis of the grammar of everyday terms, a description of that grammar, will solve conceptual problems. Wittgenstein regarded everyday language as complete and adequate for the purpose of conveying the meaning of a proposition; there is no philosophical difficulty with our everyday language. However Wittgenstein did not regard it as a complete and adequate description of the world. Hence:

> For "näive language", that is to say our näive, normal way of expressing ourselves, does not contain any theory of seeing—does not show you a theory but only a concept of seeing (Z §223).

By regarding our talk of 'seeing' as containing a complete theory of seeing, and accepting that we are led astray when building scientific theory by an entanglement within language, one might conclude that an empirical investigation of the use of the word 'seeing' might provide a surview, a description, which is a theory of the world and free from philosophical confusion which arises from an entanglement in everyday language. This would distort Wittgenstein's conception of how it is that philosophical problems arise and conflate the resolution of philosophical problems (Wittgenstein's method) with the resolution of theoretical problems within science (Psychology particularly). Baker and Hacker (1980) recommend that the example of 'seeing' be generalised. Everyday language tells us only what our concepts are not the way the world is.

Regarding the attainment of philosophical clarity as being an empirical investigation of grammar correctly identifies that Wittgenstein regarded everyday language as complete and adequate in itself but fails to distinguish the roles of philosophy and its relation to empirical investigations in psychology and other social sciences. It also correctly establishes where it is that we must look to resolve our *conceptual* problems. But by regarding everyday language as a theory of the world which is the ultimate measure of the adequacy of other theorising, say in philosophy or psychology, commits Wittgenstein to a position which he would not defend—it distorts his philosophical method by modelling it on the physical sciences. Wittgenstein's philosophical method does not tell us the actual ordering of

language. The method is constrained by the misuse of our language which promotes philosophical perplexity:

> We want to establish an order in our knowledge of the use of language: an order with a particular end in view; one out of many possible orders; not the order. To this end we shall constantly be giving prominence to distinctions which our ordinary forms of language easily make us overlook. This may make it look as if we saw it as our task to reform language. (PI§ 132).

The achievement of a surview is not a theory about language. A surview is not the correct ordering or use of language—it is not a theory about the way we do or should use language. Wittgenstein does not claim to offer a theory about anything. Wittgenstein once stated in a lecture: "All I can give you is a method; I cannot give you any new truths." (WLA, p. 97). His position on his own philosophy, and the description he offers of the philosophical method, are entirely consistent. He seeks only to remove our misunderstandings by directing us towards our employment of terms within our shared practices.

Wittgenstein regarded the attainment of a surview as a technique to dissolve conceptual confusion. The attainment of a surview itself was not the achievement but merely the signal, or criterion, which indicates that the philosopher's task is complete. For instance, at PI§ 133:

> For the clarity that we are aiming at is indeed *complete* clarity. But this simply means that the philosophical problems should *completely* disappear.
>
> The real discovery is the one that makes me capable of stopping doing philosophy when I want to.—The one that gives philosophy peace, so that it is no longer tormented by questions which bring itself in question.

Philosophy produces 'understanding' by removing the misunderstanding which is apparent when philosophical questions are raised. In the same way that grasping an everyday rule has criteria for demonstrating that the rule is understood (see Chapter Two pp. 48-61) so too in philosophy there is a final point at which our understanding is demonstrated by the criterion of no longer wishing to raise the question. This conception of the nature of philosophy regards philosophy as an activity which has a method which should be contrasted with other activities, like science. The notion of a surview should be restricted to its function in philosophy. It is by confusing theoretical psychology with philosophy that one is tempted to seek out a

surview through the empirical study of actual language uses. The methods employed in psychology and the methods employed in philosophy are entirely different. They are two different practices.

Conflating of the Practices of Social Science with Philosophy

There are two ways of interpreting Thagard's work as Dietrich (1989) suggests. ECHO is either a contribution to philosophy or it contributes to psychology. But there seem to be insurmountable problems in regarding these interpretations which have been presented above. Thagard's work with ECHO provides the example to complete the account of the nature of philosophy and its relation to psychology. Thagard's (1989) work on ECHO presents a theory *and* studies grammar, by representing the possibilities, differences, relations and intermediate cases of a theory of scientific theory appraisal. According to Wittgenstein.

> You want to straighten out a knot by pulling at the ends of the string—And as long as you pull, the knot can't come undone. You feel there is still a knot, so you pull. And the knot becomes smaller and harder.
>
> One way of solving a philosophical problem is to tell yourself:*it is insoluble*. It isn't answerable or it would have been answered, you would have answered long ago. It's not a kink, it's a knot. Don't look for an answer, look for a cure. Don't try to pull it straight, try to unravel it (MS. 158, 33 f (in English) cited in Baker and Hacker, 1980 p. 288).

And in a similar tone:

> Philosophy is like a ball of wool. It's no use *pulling* at it. And I am apt to pull. (LFM, XXIII p. 220).

The knot we try to need to untangle is the relationship between the philosophy of science and psychology.

Wittgenstein separates philosophical problems from those of psychology, of science generally. Baker and Hacker summarise: "...philosophical questions are not questions in search of an answer, but questions in search of a sense. (1980 p. 280). Philosophical problems arise because we are confused by the rules by which we adopt in engaging in our shared practices. Wittgenstein

insists that philosophy merely points out the rules to us when we go wrong—it gives them sense.

The question that puzzles us is why a shared practice might adopt a contingently unshared, initially incomprehensible, practice presented by an autonomous individual. Another representation of the question might be: 'How it is that we can distinguish between the assertions of the creative and the assertions of the insane?' Traditionally we have looked to the philosophy of science to resolve such questions. There have been attempts to keep such questions purely part of the realm of the philosophy of science (Chapter One). These attempts have been undermined by a tradition which accepts the 'naturalistic turn' to philosophy. But Wittgenstein's method of producing a philosophical understanding conflicts with the method implicit in naturalised versions of the philosophy of science. Surrounding the above question is the more important question of whether such a proposal is a philosophical question or one that belongs to psychology.

It has been argued in Chapter Five that philosophical clarity cannot, in principle, be resolved by empirical inquiry. Regarding Thagard's work as a contribution to psychology then, from Wittgenstein's perspective, Thagard presupposes the adequacy of his concepts for their employment within a theory of scientific creativity—This *might* be problematic in the same way that Schachter's work was considered to have difficulties. However, there need be no presumption that psychological theory necessarily involves conceptual entanglement—see Chapter Seven. Nevertheless, considered as a contribution to philosophy Thagard's proposal conflicts with Wittgenstein's method for obtaining philosophical clarity.

From the perspective of Thagard's philosophical contribution the ECHO programme instantiates the grammatical rules which constitute the normative practice of appraising theory. From Wittgenstein's perspective, Thagard's theory of theory appraisal instantiated in the ECHO programme is really just an analogy of the scientific process: it provides an overview of certain grammatical rules but does not tell us what rules we actually follow when we adopt a novel practice: ECHO describes the 'game' it neither plays it, nor offers the way it should be played. Thagard's ECHO programme simulates the practice of accepting a divergent practice; it does not demonstrate the rules we follow when we assimilate a novel practice—nor does it demonstrate, by it proficiency with historical examples, the reasons why we might assimilate a divergent practice.

The debate concerning whether Thagard's work is a contribution to philosophy or psychology is fueled by the weak psychologism which Thagard concedes to. Like Frege, discussed in Chapter One, Thagard concedes to the Cartesian ontology by asserting the Functionalist account of the mind: regarding 'thinking' to be some mental process. In seeking to give priority to one form of inquiry Thagard, or at least critics of the approach(e.g Dietrich 1989) require some criterion to distinguish the two approaches. But in seeking out such criteria one moves to yet another position (A theory of theories of theory appraisal). To dissolve all such attempts to adopt this form of Platonistic reasoning (The building of theories in philosophy) Wittgenstein typically requests that all that is needed is: "...to identify the ultimate criteria of correctness that we find acceptable when actually using language rather than theorising about it. (Pears 1988). And as might be apparent by now those criteria are manifest in a practice (PI §217).

Wittgenstein's attack on the Platonistic accounts apparent in Frege's account of logic are no less valid when applied to any other theory building enterprises in philosophy. Hence, instead of discussing a single rule of, for example, a law of logic, we encounter a set of rules which are thought to describe, somehow, our ability to discriminate between good and bad science, or creative and insane acts. The problem according to Wittgenstein is:

> "All the steps are really already taken" means: I no longer have any choice. The rule, once stamped with a particular meaning, traces the lines along which it is to be followed through the whole of space.——But if something of this sort really were the case, how would it help?(PI §218).

Frege could not adequately account for an individual's grasping of a mind-independent sense. Here Wittgenstein points out that a rule laid down in philosophical theory sacrifices an individual's role in grasping that rule. Thagard also confronts this with respect to his 'philosophical theory' of grasping the rules in orienting ourselves to divergent practices—which was obviously what Kuhn also recognised. Thagard's theory of theory appraisal gives theory appraisal meaning independent of those who actually are engaged in the practice of appraising theory. Thagard gives priority to the contents of the theories of history, not the reasons they were accepted—since this is what he is trying to determine by implementing the criteria of theory appraisal within ECHO. The whole point of the ECHO programme is

to establish the 'sufficiency' of the criteria in operation according to the algorithm. But this fixes the meaning of what is considered 'good science' or 'good theory' to those criteria.

Pears (1988 p. 466) points out:

> Rails laid down to infinity would be useless unless the traveller were locked on to them, and similarly, complete guidance by rules already laid down in reality would be useless unless there were something in the rule-follower's mind that latches him on to them infallibly.

Both these options have been dismissed under different guises in earlier chapters. The investigation of rules and rule-following in Chapter Two revealed that rules are not to be considered as the the causes of human action. More importantly, the relationship between a rule and its extension is internal—nothing else mediates between the rule and it criteria: not society, not mental processes, not some locking device onto rails stretching to infinity.

But what of ECHO's actual success? We might concede that as a philosophical theory Thagard's work produces an incoherent account of rules and rule-following, but does it not actually work? ECHO's quite good at sorting out historical examples. But this line of reasoning, if continued, would overlook the purpose of the use of the historical examples—they were used as the measure to establish the 'sufficiency' of the arrangement of the criteria instantiated in the programme. It has been argued (Chapter Five, pp. 164-183) more generally that evidence does not stand as an independent measure of the adequacy of a grammar.

We must put an individual's 'choice' back into the relationship between language and meaning (restore the internal relation). The rules we follow within a practice determine what is to count as an action of a certain kind—we orient ourselves to this conception by following Wittgenstein's *philosophy*. When judging two competing theoretical orientations, such as the competing alternatives of the oxygen/phlogiston debate we engage in a particular practice. Like any other social practice assessing the merits of competing theories is governed by certain normative conventions which describe what are legitimate and illegitimate moves within that practice. What Thagard describes with his arrangement of those criteria is the normative criteria involved in assessing a creative act. He describes one aspect, for the purposes of a scientific investigation, (The final component

in this consideration of the concept of creativity), of the practice of giving an ascription of scientific creativity—that is the acceptance of a novel or divergent scientific practice. We are socialised as participants of academic study to orient ourselves to divergent practices in particular ways.

Philosophy's role in Changing our Conceptual Orientation

Implicit within Wittgenstein's approach to philosophy is the notion of changing an orientation and coming to see things 'right'. The primary purpose of philosophy is to adjust our conceptual orientation.

> We are caught in a fly-bottle and find ourselves denying or affirming things we never intended. The only way out of this is to change the terms used to express the problem, the language, and thus the pictures that hold us captive. Philosophy's job is to effect this liberation by changing a way of seeing/speaking.(Genova, 1993 pp. 329).

But what of science? Surely science alters our orientation to the world. One might say that Galileo discovered that the earth goes around the sun. On this Wittgenstein remarks that the real achievement of a Copernicus or a Darwin is the discovery not of a true theory, but a fruitful new aspect. We might forget that it was Copernicus who presented the conceptual orientation for Galileo's observations (Baker and Hacker, 1980 p. 300). Similarly we can interpret Thagard as producing a new representation of our conception of appraising theory: he provides a certain representation of the grammar of creativity and uses it to represent certain historical events—an altered perception of philosophy's contribution to such a task, in the light of Wittgenstein's method, negates the compulsion to suppose that philosophy's role is undermined by this interpretation.

Philosophical developments, through the study of grammar and grammatical errors in theory provide conceptual orientations—not discoveries about the world. Wittgenstein remarks (PI §401):

> You have a new conception and interpret it as seeing a new object. You interpret a grammatical movement made by yourself as a quasi-physical phenomenon which you are observing. (Think for example of the question: "Are sense-data that material of which the universe is made?")

> But there is an objection to my saying that you have made a 'grammatical movement'. What you have primarily discovered is a new way of looking at things. As if you had invented a new way of painting; or again, a new metre, or a new kind of song.

The objection is that, strictly speaking, science does not involve the study of grammar—philosophy does. This, of course, is not meant to preclude the scientist philosophising. Thagard's work can be considered both a philosophical achievement: since he carefully organises the relations between certain aspects of the grammar of theory appraisal; and it is a contribution to social science: since it provides a 'new' way to evaluate historical movements in science. Nevertheless, at first sight, the separation of science and philosophy by Wittgenstein, seems to be undermined by the above claims. Wittgenstein dispels confusion at PI§ 126:

> One might also give the name "philosophy" to what is possible *before* all new discoveries and inventions.

This does not place philosophy in a privileged position of 'Queen of the sciences' or imply that philosophy provides the foundation for science. Philosophical clarity merely provides a working space for actions within science. In science grammatical possibilities fence in inquiry—we should not ask illegitimate questions which breach our grammatical rules and the attempt to answer them empirically (see Chapter Five, pp. 171-183). In the same way, the laws of a country do not tell a citizen how he or she should act they merely operate to inform which actions are inappropriate. Seeking out conceptual clarity prepares the scientist for an investigation unburdened, or at least assured with a level of confidence, that one is not pursuing the nonsensical.

Thus Wittgenstein's conception of philosophy provides us only with a method for exposing conceptual confusion in our actual practices. Philosophical clarity does not relieve us of the burden of theorising, it merely provides a space for us to work within. Philosophical clarity precedes scientific inquiry in the sense that it provides the clear interpretation of the rules which constitute our use of linguistic expressions in the practices of presenting questions and explanations. Philosophy is not prescriptive in the sense in which we look to philosophy to tell us how we should engage in scientific practice—it is normative: it tell us only when we have gone wrong. And a study of grammar, like the study of the law, will only tell a scientist how not to act, not how to proceed.

Commenting on the status of his own philosophy, Wittgenstein states:

> My 'achievement' is very much like that of a mathematician who invents a calculus. (C.V p. 50).

The invention of infinitesimal calculus enabled the calculation of functions. In the physical world many of the relationships between quantities can be expressed by continuous and differentiable functions. Thus only differential calculus makes it possible in the natural sciences to to express mathematically not only states but also processes. (Gellert, Küstner, Hellwich & Kastner, 1975 p. 406). In the same way the invention of calculus preceded and was necessary to the development of certain discoveries in physics, so too the recognition of Wittgenstein's philosophical method precedes our investigations in psychology. Since Wittgenstein offers a way to examine our concepts, point out the senselessness of certain tasks, and so on, we are in a position to examine the connections and differences between concepts and their employment within certain practices. Thus, by examining these concepts we obtain a conceptual overview.

These conclusions led Russell to remark:

> It positive doctrines seem to me trivial and its negative doctrines unfounded. I have not found in Wittgenstein's *Philosophical Investigations* anything that seemed to me interesting...[I]f it is true, philosophy is, at best, a slight help to lexicophers, and at worst, an idle tea-table amusement. (Russell, p. 217 cited in Baker and Hacker, 1980 p. 287).

Baker and Hacker reply:

> Russell is like a man groping in a dark room who, when the light is switched on, complains that there is nothing interesting to see, forgetting that the achievement was to find the switch. (Baker and Hacker 1980 p. 287).

If one really does hanker after the interesting things in the world then Russell is correct with his interpretation that Wittgenstein's philosophy will not reveal them. Philosophy reveals only the conceptual space for investigation: by turning on the light switch and enabling us the resource of using our eyes. We must develop theory, or a conceptual orientation to the world, if we are to find those things which Russell requests. Wittgenstein provides a method which justifies our selection of one of the myriad of uses of our conceptual language. The theory is not justified by

that method: it is merely a resource, like any other resource, say those of mathematics for the physicists, which enables us to change our representation of the world.

Conclusions

From Wittgenstein's philosophical orientation we must regard the criteria of theory appraisal instantiated in the ECHO programme as being constitutive of a grammar which surrounds the practice of accepting divergent, or novel practices. It is an illegitimate move to regard the description of a grammar as the representation of the actual practice—in the same way that we study everyday language to gain the concept of 'seeing' not a theory of seeing. Philosophy does not study actually practices for the purpose of developing theory. The division between philosophy and science within Wittgenstein's philosophical perspective requires an extra step to introduce his philosophical method to theoretical psychology.

Genova (1993 p. 328) points out:

> The very style of the *Investigations* mirrors his goal and argument procedure precisely: the possible declamatory contents of the remarks is sacrificed to the deed, to the illocutory act they perform, to change a way of seeing.

If we are to concede to Wittgenstein's philosophical method then, in relation to Thagard's proposals, we must sacrifice the content of Thagard's structure to its philosophical force: it acts to remind us that theory cannot be assessed according to the evidence alone. It offers a perspective on the practice of theory appraisal, it does not tell us how it is actually carried out. The criteria incorporated within the ECHO programme describe what is constitutive of a scientific orientation to divergent practices vis-a-vis some other 'game' such as accepting a religious belief. We regard those people who offer such reasons as those contained within ECHO to be properly orienting themselves to theory. In the same way we regard those people who act in accord with logical reasoning to be acting rationally (Chapter One pp. 27-34). But those who have some alternative practice, or some alternative logic, are not insane or irrational (as Frege suggests) but simply not acting in accord with what we call science, or logic.

Summary and Conclusions

The study of Grammar and the Scientific investigation of Creativity

The only task that remains is to provide a demonstration, an example, of how Wittgenstein's philosophical method might be applied in relation to the practices of psychology. This thesis has relied on the concepts of insanity and creativity to illustrate the inadequacy of other attempts to theorise within psychology, establish a philosophical foundation for psychology, and demonstrate the importance of Wittgenstein's philosophy to psychology. There is a duty to attempt to provide an approach to the study of these phenomena in the light of the conclusions already obtained. Nevertheless, it should not be overlooked, that the following is an argument which serves only to demonstrate, by example, how Wittgenstein can be introduced into psychology—it would be a mistake, and contradictory to the conclusion above, to interpret this argument as being derived from Wittgenstein or, more broadly, Wittgenstein's method.

Neonate Crusoes, the last of the Mohicans, and the like, present no conceptual problems within Wittgenstein's account of philosophy. It misrepresents Wittgenstein's private language argument to suppose that it rules out the possibility of an autonomous individual, who as a genius child, invents a language in total isolation from any society. We can then, without conceptual error in psychology, regard certain concepts as being subsumed by the more general notion of 'autonomous individuals': individuals who develop practices not shared by any social practice.

The removal of the idea of a social determination of an individual's conceptual orientation to the world enables the conceptualisation that an individual can represent the world in ways which are contingently unshared. It is not a logically necessary feature of an individual's form of representation that it is obtained through learning—it may be a contingent

truth since wolf-children appear not to develop a language. Nevertheless, there is no logical requirement that an individual must learn a language, or a conceptual orientation, from within a society.

It is legitimate in psychology to theorise about the capacities of 'autonomous individuals'. No grammatical boundary is breached. However, further issues are raised within the conceptual articulation of autonomous individuals. One might be too quick in exploring the grammatical space provided by removing the illusory requirement that practices be learnt from others. We might for instance regard all creative acts to be contingently unshared—there is something true in this but it does not help us in any way; it does no work. It is by contrast to other concepts, in this example the concept of 'insanity', that our conceptual confusions are removed. Both the concepts of insanity and creativity were argued to be ascriptions given to those who have contingently unshared practices.

The range of contingently unshared practices which autonomous individuals can logically engage in is constrained only by certain preconditions which must obtain for any practice at all to occur. If a practice is a genuine practice (cf. The private language argument, see Chapter Three p. 68) then it must be governed by public criteria which exploit the stability of the natural world. The practice of measuring for instance, requires that the objects measured do not shrink and grow in dimensions at random intervals (see Chapter Four pp. 141-143). And relatedly, our biological capacities (which are part of the physical world) constrain our practices. We do not claim to see beyond a certain wavelengths of light, or hear beyond a certain pitch since we are constrained in our colour and sound language to those stable features of the natural world which our biological capacities can exploit. But within these broad constraints occurs a range of actual practices which are logically possible. When we (Psychologists) orient ourselves to these practices we can identify that divergent practices fall along a continuum. The insane we regard as unintelligible and the creative we regard as intelligible. In between these ascriptions is a range of other ascriptions for describing those which do not conform to, or share, a social practice: they might be considered criminal, delinquent, deviant, bizarre, eccentric, and so on.

Thus certain aspects of the grammar of the concepts of creativity and insanity are revealed by contrasting them against one another revealing some similarities and some differences. Both the creative and the insane

produce unshared (novel) practices in relation to a shared social practice (Chapter Four). The insane can only be regarded as insane if the practice they engage in is unshared, and furthermore unshareable. Since if a practice is shareable then it is potentially intelligible. If a practice is potentially intelligible then it cannot be an action which we describe as insane. A creative act must be one which is relative to the shared practices of a social group. It is the group, the society, that gives the ascription of creativity. A community can do so, it has been argued, by exploiting a shared practice which enables the assessment of divergent practices (Chapter Six). Nevertheless the dismissal of a contingently unshared practice is fundamentally different from the assessment of a practice as being unintelligible. In the former one can exploit one's form of representation to measure the adequacy of the other person's form of representation, in the latter such a process is logically impossible. One cannot even represent to oneself what the insane person is on about.

The conclusion of this grammatical investigation is that there is a similarity between the insane and the creative which, because of the grammar of the concepts, conceals a feature of the creative which produces conceptual confusion. The use of the concepts of insanity and creativity in psychological research *must* regard these ascriptions as applying to 'autonomous individuals' *relative to a social context.* Understanding the distinction between the concept of 'creativity' and other concepts to which it is related, like 'insanity', rests in understanding the effect creative individuals have on a social practice.

One cannot, in principle, reveal the conceptual structure of the relationship between insanity and creativity by engaging in empirical research. Empirical research presupposes the criteria for the identification of phenomena and therefore cannot expand, or contribute, to our conceptual understanding. Nevertheless, empirical research can, reliant upon gaining a clear view of conceptual confusions, (i.e removing confusion by doing philosophy) contribute to our understanding of the world.

With these general clarifications revealed let us suppose that we are interested to find out the connection between the insane and the creative. How might a grammatical investigation of the type employed within this thesis be of any help to our theorising?

A logical requirement of the grammar of creativity requires that we regard the creative as 'autonomous individuals'. It is then possible to theorise that such a position is a stressful one as Maddi (1975) and also Lichtenstein (1971) suggest. Whether there is evidence to support this conceptual orientation becomes a problem for psychology, not a conceptual problem, an empirical one which rests on a conceptual understanding of what criteria are involved in identifying stress and anxiety. Certain theoretical orientations to such a problem have already been removed from consideration—that anxiety might be described in purely causal terms. It is simply suggested here that the criteria for being anxious might extend to presenting novel ideas which are contingently unshared and therefore open to rejection since they are only potentially intelligible, not readily intelligible. (Think of the example of the physicist who presented his photograph of what people look like in the dark.)

It has been argued that Schachter's work on psychopaths has major conceptual difficulties. Schachter's method of inquiry presupposed the adequacy of certain concepts—like psychopathy. The problem which he wished to solve, 'what is psychopathy', is really a conceptual one, and therefore, it has been argued, cannot be achieved, in principle, by empirical investigation: his problem and his method pass one another by. But if one starts with a clear view of the concepts one might normally presuppose within empirical research then it is possible to reveal, without grammatical error, certain evidence which is supported by a conceptual orientation (or form of representation). Thus one produces knowledge (not trivial knowledge but scientific knowledge) about the world without asserting nonsense: breaching grammatical rules.

Certain evidence presents itself immediately within even a cursory examination of the literature on creativity. The work of Juda (1949) and others (Chapter Five pp. 185-192), for example, describes the incidence of psychopathology in relatives of the creative as being significantly higher than that of normals. The inference drawn from this material normally concerns some underlying genetic or motivational factor which contributes to both insanity and creativity. Yet, it has been argued (In chapters Two and Three) that it is a mistake to posit some hidden entity which is responsible for the characteristics of our psychological predicates. Despite this, it is a mistake to dismiss the findings of such research since once we engage in science it is such things which we are required to make sense of. Juda's results are those interesting things which Russell complains are lacking

when one adopts Wittgenstein's philosophy. A legitimate inference is that there is some biological capacity (A feature of the physical world) which is common to both the creative and those who suffer some psychopathology.

Goertzel and Goertzel (1962) report that from a sample of 400 eminent scientists, artists, philosophers and so on, 75 per cent came from troubled or broken homes. The childhood environment of the creative was characterised by rejecting or estranged parents. Almost 50 per cent of their sample came from homes marked by major financial fluctuations. The task was repeated in 1978 where further study revealed that 85 per cent of twentieth century creative persons came from broken homes. Novelists and playwrights being more likely than scientists to come from a stressful home environment. Eisenstadt reveals that the creative seem more likely than others to endure bereavement of a parent at a young age with 25 per cent (n=699) of the creative in his sample losing a parent before the age of 10 years. Ochse (1990) offers: "The only other subgroup with approximately the same proportion of childhood bereavement are delinquents and the suicidal depressives." (p. 75). Therefore there is some evidence to support the notion that the creative are raised in stressful conditions: a requirement for psychopathy on Schachter's view.

According to Schachter's (1971) method, adopted for the study of adrenalin sensitivity in psychopaths, the avoidance learning task is assumed to produce anxiety in the subject. The fear of the electric shock induced by error on the maze learning task is thought to reinforce learning. Psychopaths scored poorly compared to normals and the inference drawn was that psychopaths lacked the requisite anxiety (They do not get stressed). Other alternatives were dismissed or controlled for, such as, the possibility that psychopaths were just poor at learning or under-aroused.

Suppose that in Schachter's study the independent variable of psychopathology is replaced by giftedness. Instead of comparing normals with psychopaths, a group of creative individuals is compared with a group of normals according to the same method used in Schachter's (1971) study. The reason one might adopt such a line of inquiry is that one is aware of the grammatical connection between the concept of insanity and the concept of creativity (one has an altered form of representation). Instead of presupposing the adequacy of terms to reveal their conceptual relations through empirical inquiry one starts with an overview of the similarities and differences between the concepts. The intention of this research would

not be to advance any conceptual understanding. Our conceptual understanding is advanced by doing philosophy. The purpose would be to test some theoretical assumption—in this case that the creative have a physiological capacity which, like that of the psychopath, facilitates dealing with stressful situations. We want to make sense of two findings which are revealed by empirical study. Firstly, that the creative and their relatives, as a group, have a higher incidence of mental illness than normals. Secondly, that the creative have a higher incidence of childhood trauma than others.

There are a number of possible outcomes of the experiment. It might be found that, like psychopaths, the creative are poor at avoidance learning tasks (while not being poorer at learning in other situations), and sensitive to adrenalin. If this result was obtained then the experiment would have identified a feature of the physiological nature of the creative which is the same as that of psychopaths and different from that of normals—both psychopaths and the creative are sensitive to adrenalin and do not fluctuate from a high level of arousal (essentially the conclusion of Schachter's research applied to both the creative and the psychopathic). We could not conclude that adrenalin sensitivity causes both psychopathy and creativity. Furthermore, no conceptual connection is established by such an inquiry. We would not need to postulate some third entity to explain these research findings. The conceptual connection is revealed in the grammar of the concepts of insanity and creativity which facilitates such a line of research.

Of course the result of this hypothetical experiment may turn out otherwise. It is not the purpose here to presuppose the result of an experiment which has not performed (The effort required to perform such an experiment would be enormous since the creative are less likely than the prisoners used in Schachter's study to be willing to participate in such an experiment). If the result could be determined from some philosophical standpoint the point of experimentation would be lost.

In summary, by working within an understanding of the grammar of creativity which is revealed by Wittgenstein's philosophical method, it is legitimate to make, for example, two theoretical assumptions. The creative being 'autonomous individuals' occupy, from the standpoint of a normal person, a stressful environment which they endure by exploiting a physiological capacity, similar to that of the psychopathic, to ignore stress and anxiety. Such assumptions can be tested empirically. Revealing the grammatical connection between insanity and creativity (i.e that both

concepts apply to individuals who do not participate in some relevant shared social practice) does not tell us anything about the actual features of the creative and the insane—it merely facilitates research which might do so. By introducing the added assumption that autonomous individuals place themselves in stressful conditions, a line of inquiry has been offered which supports a reinterpretation of past psychological experimentation—such is the task of the theoretical psychologist, not the philosopher of psychology.

Conclusions

They sought it with thimbles, they sought it with care;
They pursued it with forks and hope;
They threatened its life with a railway-share;
They charmed it with smiles and soap.

And the Banker, inspired with courage so new
It was matter for general remark,
Rushed madly ahead and was lost to their view
In his zeal to discover the Snark.

Lewis Carroll 'The hunting of the snark'

Wittgenstein has offered psychologists a method to pursue the interesting things in the world without the stultifying effects of an entanglement within language. His legacy is lost to those who ignore the warnings which accompany the method. There is no one philosophical cure for the misunderstandings which arise within a misuse of language. Each misunderstanding is resolved by a careful considerations of the sources of confusion—since the sources of confusion will vary and are unpredictable, so too the techniques required to remove the confusion must vary. There can be no one Wittgensteinian method for psychology, no new Wittgensteinian ontology, no new method for gathering information in the light of Wittgenstein's philosophical insights. To forge a new psychology from Wittgenstein's philosophy is to ignore what is the most crucial feature of his legacy—we rush forward with new methods, like the banker, forgetting that the real achievement is to recognise that the task is nonsensical. Wittgenstein does not offer a new psychology, he only offers a way to scrutinise the nature of our inquiry so that we might recognise *not* that our methods are primitive but that *sometimes* the those methods are employed in the pursuit of chimeras.

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